Regency COMMUNICATIONS INC.

PRELIMINARY SERVICE MANUAL

UHF-FM MOBILE TRANSCEIVERS

MODELS MCU 15, 15H; MCU 31, 31H MCU 18, 18H; MCU 34, 34H

1227 S. PATRICK DR.
SATELLITE BEACH, FLA

0300-4096-500

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3-79

PRELIMINARY SERVICE INFORMATION FOR MCU 30 AND MCU 15

1. Test Procedure
2. Radio Schematic
3. Control Panel Parts Overlay
4. Main Board Parts Overlay
5. Main Board Parts Placement Diagram
6. Option Tie Points
7. MCU 30 PA Schematic
8. MCU 30 PA Parts Overlay
9. MCU 30 PA Parts Placement
10. MCU 15 PA Schematic
11. MCU 15 PA Parts Overlay
12. MCU 15 PA Parts Placement
13. MCU 30 & MCU 15 Main Board Parts List
14. MCU 30 PA Parts List
15. MCU 15 PA Parts List
16. Control Board Parts List

REV B SH 1 DWG. NO. TP 14-154

APPLICATION	
NEXT ASSY	USED ON
	mcu-30

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	R-050	9-13-78	DAJ
B	EN AA-553	12-6-78	DAJ

FINAL TEST PROCEDURE MICRO-COM U30 SERIES AND MICRO-COM U15 SERIES

I. Test Set-Up

A. Equipment

1. MICRO-COM U30 Transceiver
2. HP 410 DC VTVM
3. DC Power Supply with Ampmeter 13.6 VDC 15 Amps DC
4. VOM Simpson 360 (Digital)
5. AC VTVM
6. Audio Oscillator
7. Mic matching network
8. 450 MHz Thruline Wattmeter, 30 db Power Pad and 50W Element
9. Spectrum Analyzer
10. Deviation Meter*
11. Frequency Counter*
12. Small Blade Tuning Tool and Hex Tuning Tool
13. Tune-Up Crystal
14. Band Reject Filter
15. PTT Switch

*Can be replaced with Cushman or similar equipment

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE FRACT. ± DEC .XX± .XXX± ANG. ±	APPROVALS	DATE
	DRAWN mf	9-1-78
	CHECKED	
	DFTG. SUPV.	
MATERIAL —	ENGR. DAJ	9-13-78
FINISH —		
DO NOT SCALE DRWG.		

Regency COMMUNICATIONS INC.
SATELLITE BEACH, FLORIDA 32937

TEST PROCEUDRE MICRO-COM U30

SIZE	PART NUMBER	REV.
A	TP 14-154	B

SCALE — SHEET 1 OF 9

B. Test Interconnection Diagram

Transmitter Tests

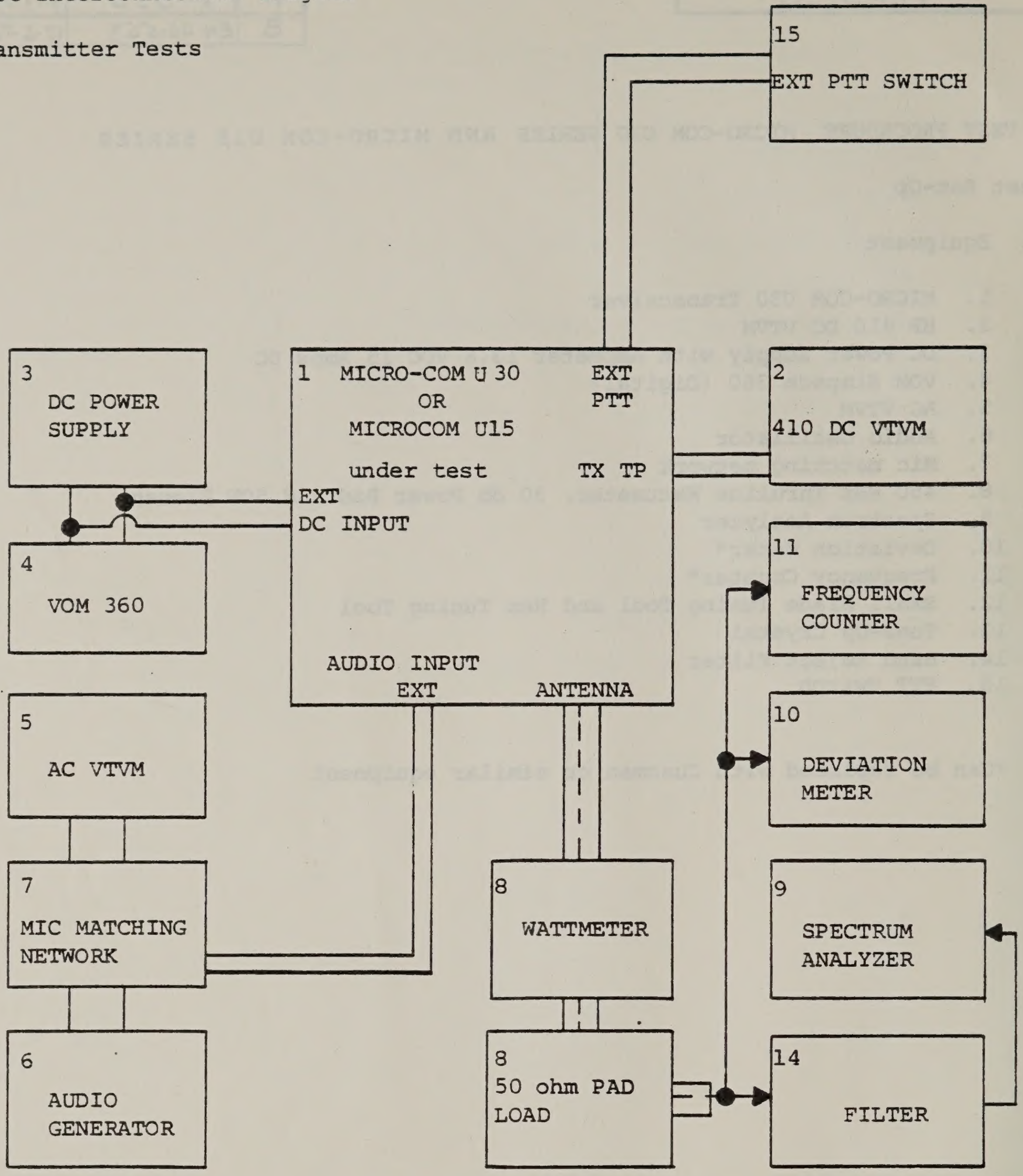


FIGURE 1

DRAWN MF/WJM	DATE 9-1-78	SIZE A	PART NUMBER TP 14-154	REV. B
APPROVED Baj	DATE 9-13-78			
DO NOT SCALE DWG.		SCALE –		SHEET 2

II. Set-Up Instructions

A. Insert tune-up crystal in F1 position. The tune-up crystal is selected as follows:

Freq Range	450-475 MHz	475-512 MHz
Frequency	462 MHz	492 MHz

B. Insert external power connector and set power supply(3) to 13.6 VDC as indicated on VOM(4).

C. Connect wattmeter, 30 dB attenuator(8), band reject filter(14), and spectrum analyzer(9) to antenna connector.

D. Insert external PTT connector(15).

E. On 4 channel models, set frequency selector to F1.

F. Preset C346 and C349 for minimum capacitance. Preset C351 and C355 at half maximum capacitance. Preset C358 for maximum capacitance (refer to Fig. 2).

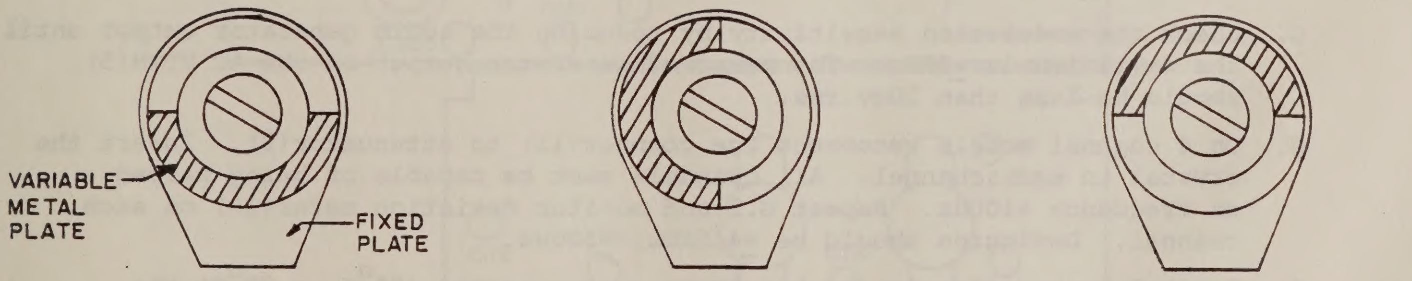
G. Turn on the radio with the ON/OFF volume switch.

III. Tune-Up Procedure

A. VTVM Metering - Set VTVM(2) on 1.5V scale. All voltage readings are referenced to chassis ground. Key transmitter with external PTT and key only when measuring or tuning.

1. Monitor M1. Tune L304 and L305 for minimum positive voltage. Voltage should be 0.1V to 0.45V. A reading of 0.5V indicates oscillator, Q301, is not oscillating.
2. Monitor M2. Tune L307 and L308 for minimum positive voltage. To find the dip, set coil forms even and tune by alternating one turn on each coil. Voltage should be 0V to 0.2V. A reading of 0.3V indicates no drive to Q303.
3. Monitor M3. Tune L310, L311, and L312 for minimum voltage. Voltage should be +0V to -0.2V. A reading of 0.3V indicates no drive to Q304.

FIGURE 2



(a) MAXIMUM CAPACITANCE

(b) HALF-MAXIMUM CAPACITANCE

(c) MINIMUM CAPACITANCE

DRAWN MF/WJM	DATE 9-1-78	SIZE A	PART NUMBER TP 14-154	REV. B
APPROVED Baj	DATE 9-13-78			
DO NOT SCALE DWG.		SCALE —		SHEET 3

III. Tune-Up Procedure (cont)

4. Monitor M4. Tune L314 and L315 for maximum negative voltage. Voltage should be -0.35V to -0.5V. A reading of 0V indicates no drive to Q305.
5. Monitor M5. First tune C346 for maximum negative voltage. Then tune C349, C351 and C355 for maximum negative voltage. Voltage should be -0.7 to -1.0V. A reading of 0V indicates no drive to Q306.

B. (1) In the MCU-30 tune C358 on the main board and C112, C131, C132, C121 and C133 on the power amplifier for maximum power out as measured on the wattmeter(8). Power should exceed 35W. Current delivered to the transceiver from the power supply(3) should be less than 13A.

(2) In the MCU-15 tune C358 on the main board and C112, C131 and C133 on the power amplifier for maximum power out. Power should exceed 15W and the current from the power supply should be less than 7A.

C. On 4 channel models, if channel spacing exceeds 1.5MHz refer to the broad band tuning procedure, TP14-155.

D. Connect counter(11) to the output of the 30dB attenuator(8) and set the F1 warp control, L301A, to the nominal crystal frequency ±100 Hz.

E. Conducted spurious emissions measurement. Tune band reject filter(14) so that the carrier is not notched and set the spectrum analyzer(9) carrier indication to the 0dB reference line. Tune the band reject filter to attenuate the carrier at least 30dB. In the MCU-30 all harmonics should be 59dB or more lower than the reference; in the MCU-15 56dB.

F. Deviation adjustment.

1. Connect audio generator(6) to microphone input. Set the generator for 1KHz at 1VAC. Connect the deviation meter(10) to the attenuator(8) output.
2. Key the transmitter and adjust R328 for ±5 KHz deviation as measured on the meter.

G. Check the modulation sensitivity by reducing the audio generator output until the deviation is ±3KHz. The measured generator output on the AC VTVM(5) should be less than 20mv rms.

H. On 4 channel models reconnect the counter(11) to attenuator(8). Insert the crystal in each channel. All channels must be capable of being warped on frequency +100Hz. Repeat G.1 and monitor deviation meter(10) on each channel. Deviation should be ±4.5KHz, ±500Hz.

I. Crystal heater circuit check. At room temperature (25°C or 72°F) the voltage at the collector of Q307 should be no lower than 13.0V. When RT301 is cooled below 0°C(32°F) and when DC power is initially applied to the transceiver the collector should drop to a maximum voltage of 7 VDC as measured on VTVM(2).

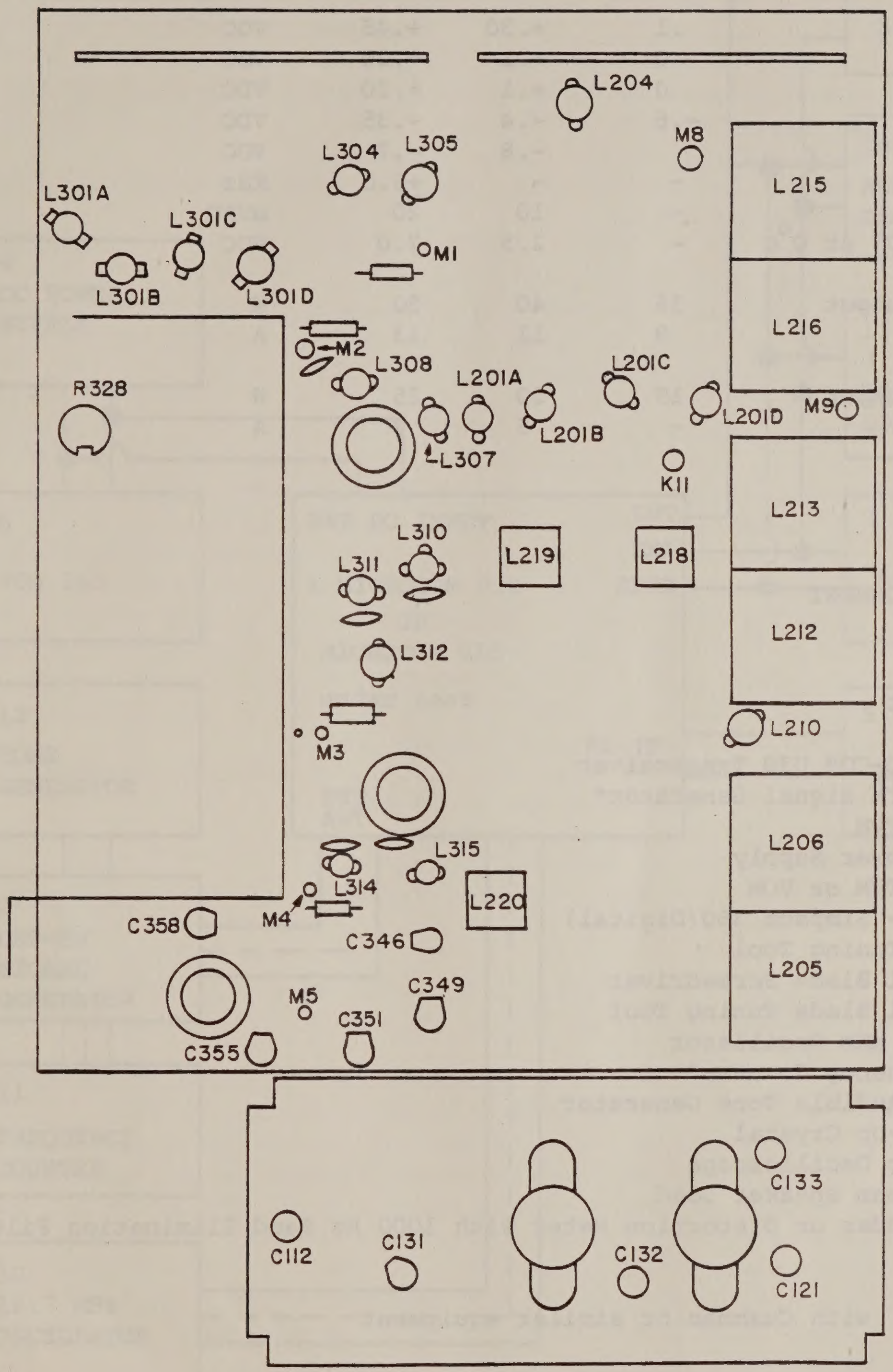


FIGURE 3. TRANSMITTER, RECEIVER AND POWER AMPLIFIER TUNING POINTS

DRAWN MF/WJM	DATE 9-1-78	SIZE A	PART NUMBER TP 14-154	REV.
APPROVED Daj	DATE 9-13-78			
DO NOT SCALE DWG.		SCALE —		SHEET 5

IV. Table of Performance Limits

PARAMETER	MIN	TYP	MAX	UNITS
M1	.1	+.30	+.45	VDC
M2	0	+.1	+.20	VDC
M3	0	+.1	+.20	VDC
M4	-.6	-.4	-.35	VDC
M5		-.8	-.7	VDC
Deviation	-	-	±5.0	KHz
Mic Mod Sens	-	10	20	mVAC
Collector Q307 at 0°C	-	2.5	7.0	VDC
MCU-30				
Tx Power Output	35	40	50	W
DC Current	9	11	13	A
MCU-15				
Tx Power Output	15	20	25	W
DC Current	-	5	7	A

B. RECEIVER ALIGNMENT

I. Test Set-Up

A. Equipment

1. MICRO-COM U30 Transceiver
2. UHF-FM Signal Generator*
3. AC VTVM
4. DC Power Supply
5. DC VTVM or VOM
6. VOM - Simpson 360(Digital)
7. Hex Tuning Tool
8. Small Blade Screwdriver
9. Small Blade Tuning Tool
10. 10.7 MHz Oscillator
11. Frequency Counter*
12. Sub-Audible Tone Generator
13. Tune-Up Crystal
14. Audio Oscilloscope
15. 3.2 ohm Speaker Load
16. Sinadder or Distortion Meter with 1000 Hz Band Elimination Filter.

*Can be replaced with Cushman or similar equipment

B. Test Interconnection Diagram

Receiver Alignment

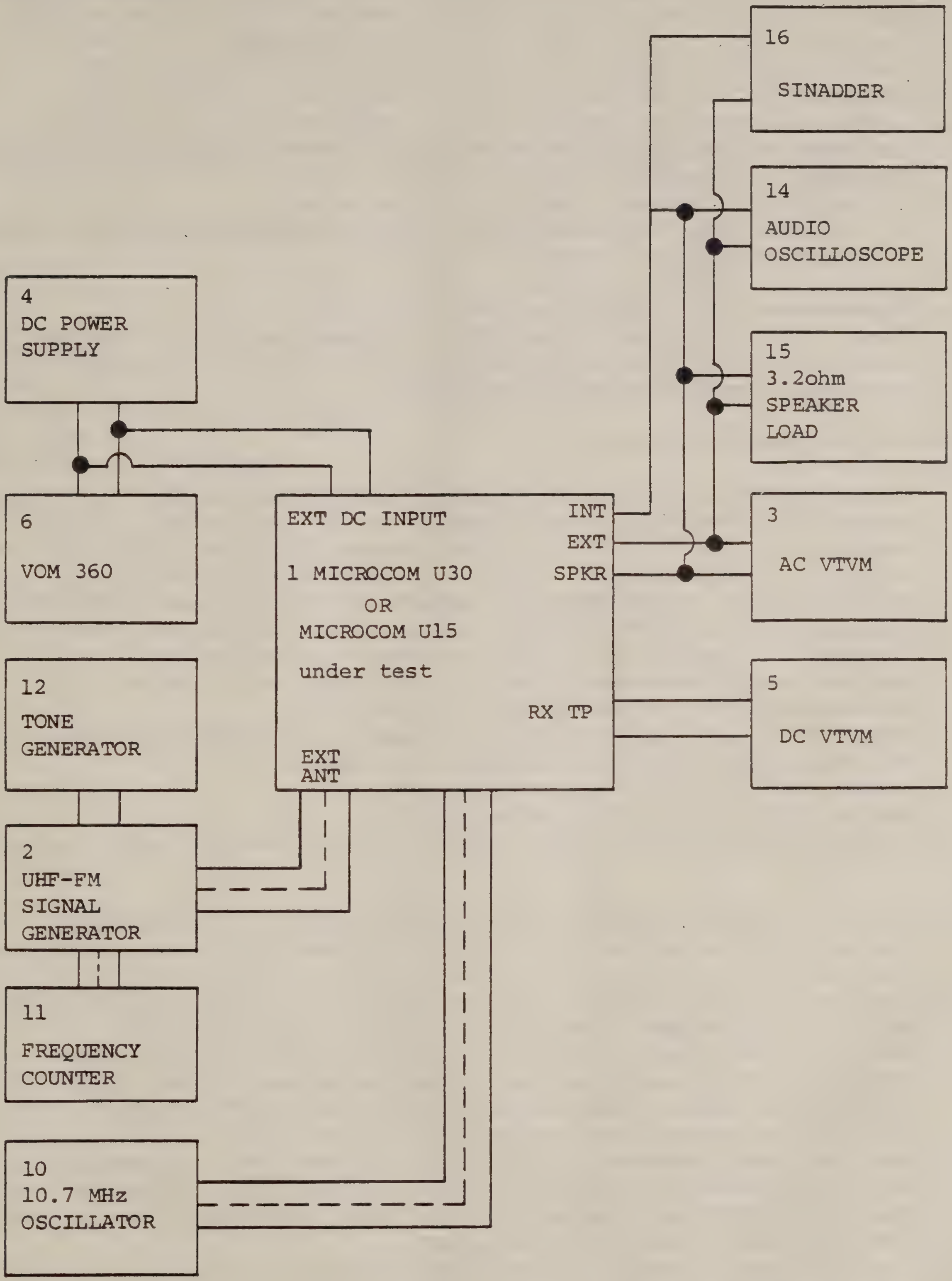


FIGURE 4

DRAWN MF/WJM	DATE 9-1-78	SIZE A	PART NUMBER TP 14-154	REV. B
APPROVED Edg	DATE 4-13-79			
DO NOT SCALE DWG.		SCALE –		SHEET 7

II. Test Set-Up Instructions

A. Set DC voltage to 13.8 VDC as measured on VOM(6).

B. Insert tune-up crystal in F1 position. The crystal is selected as follows:

Freq Range	450-476 MHz	470-512 MHz
Frequency	462 MHz	492 MHz

C. Set UHF-FM signal generator(2) to tune-up crystal frequency as measured on frequency counter(9).

D. 1. Set squelch control (R402) fully clockwise.
   2. On tone units, set tone monitor switch to monitor position or unground microphone hangup button.

E. In 4 channel units set channel selector to F1.

F. Preset L210 as follows: above 465 MHz, screw the slug all the way into the coil; below 465 MHz screw the slug out to the top of the coil.

G. Turn on radio with ON/OFF Volume Switch.

III. Receiver Alignment Procedure

A. Connect AC VTVM(3) across the speaker load and adjust the ON-OFF Volume Control for a readable VTVM(3) reading on the 1 VAC scale.

B. Monitor K11 with DC VTVM(5). Inject strong 10.700 MHz signal into the vicinity of L319 and Q207. Set K11 to 3.5 VDC by adjusting L220.

C. Monitor M8 with the DC VTVM(5). Adjust L204 for minimum voltage at M8. A voltage dip of 0.05V from the oscillator off to the oscillator on should be observed. A reading of 0.6 VDC indicates no drive to Q205.

D. Modulate signal generator(2) with a 1 KHz tone at ±3 KHz deviation. Increase generator output for 6dB SINAD on sinadder(16).

E. Adjust L205, L206, L212 and L213 for best 12 dB SINAD by constantly reducing the signal generator(2) output for 12 dB SINAD.

F. Adjust L215 and L216 for best 12 dB SINAD.

G. Monitor K11 with DC VTVM. Adjust L201A to 3.5V.

H. Increase deviation to ±6 KHz. Adjust L218 and L219 for best 12 dB SINAD.

J. Set the signal generator(2) for a 1 KHz tone at ±3 KHz deviation. Adjust the generator output for 12 dB SINAD. The generator should read no more than .35 uv.

K. Increase the signal generator(2) output to 100 uv and turn the volume control, R403, to full volume. The AC VTVM(3) should exceed 4.0 VAC.

L. Set the signal generator(2) to -130 dBm and remove the modulation. Set AC VTVM(3) to the 1V scale and use the volume control to set voltage to 1.0 VAC. Increase the signal generator output until the AC VTVM reads 0.1 VAC. This is 20 dB quieting and the generator should read less than 0.5uv.

M. Set the signal generator(2) output to -130 dBm. Set the squelch control, R402, to threshold, just quieting the receiver noise. Increase the signal generator output until noise appears. This is threshold squelch and the generator should read less then .25uv.

N. Turn the squelch control fully counterclockwise. Increase the signal generator output until the squelch opens. This is tight squelch and the generator should read less than 0.7uv.

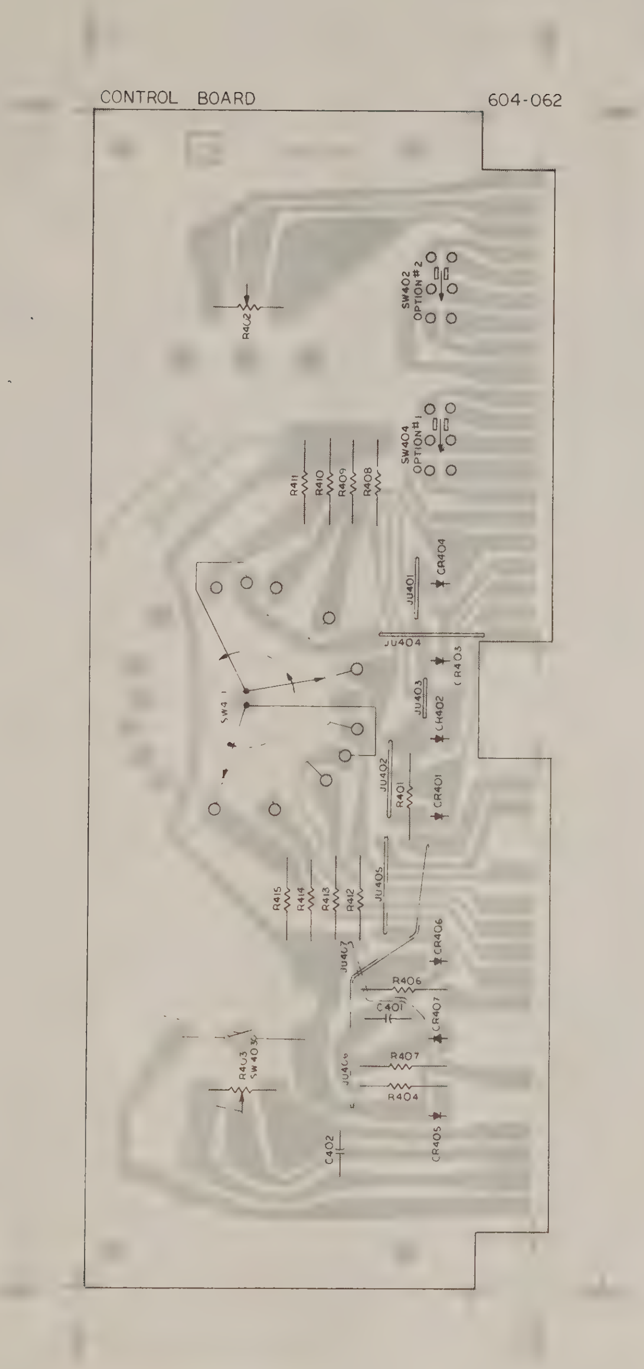
III. Receiver Alignment Procedure (cont.)

O. Monitor K11 with DC VTVM(5) set on 10V scale. Set signal generator(2) for 100uv and offset the frequency +3.0 KHz from the crystal frequency. Voltage at K11 should increase from 3.5 VDC on frequency to at least 4.5 VDC with +3.0 KHz offset.

P. On 4 channel models, the tuning should be done on a center frequency. It may be necessary to adjust L205, L206, L212, L213, L215 and L216 for best sensitivity on the highest frequency and the lowest frequency. If frequency spacing exceeds 1.5 MHz refer to 304-116 for sensitivity degradation. To net F2, F3 and F4 repeat steps G and J adjusting L201B, L201C and L201D.

IV. Table of Performance Limits

PARAMETER	MIN	TYP	MAX	UNITS
M8	-	.5	.55	VDC
12 dB SINAD	-	.3	.35	uv
20 dBQ	-	.4	.5	uv
Threshold Squelch	-	.2	.25	uv
Tight Squelch	-	.55	.7	uv
Audio Output 1 KHz Tone 3 KHz Dev	4.0	4.2	-	VAC
Noise Output	4.0	4.2	-	VAC
K11 +3 KHz offset	4.5	6.0	-	VDC



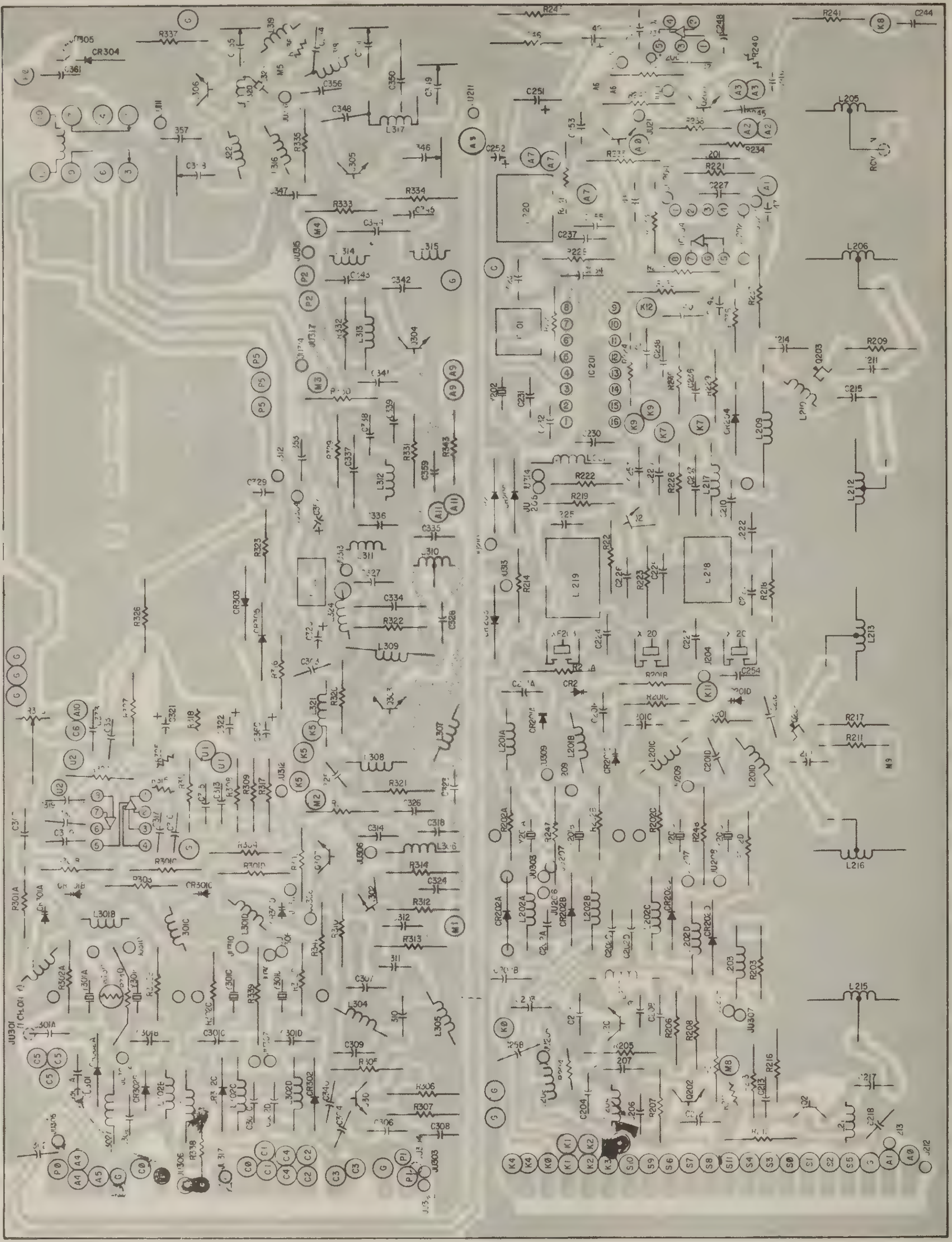
NOTES
1. THE FOLLOWING PARTS ARE USED ON 4 CHANNEL MODELS ONLY SW401, R401,8,9,10,11,12,13,14,15 CR401,2,3,4 AND JU401,2,3,4.
2 JU407 NOT REQUIRED ON MODELS MANUFACTURED AFTER JANUARY 1978.

NOTES
BLACK AREAS OF ARTWORK REPRESENT **COPPER.**
2 FOR PHOTO REDUCTION ALL FOUR DIMENSIONS MUST BE HELD TO INSIDE OF HEAVY LINES.
THIS ARTWORK [illegible] POS [illegible]

PARTS OVERLAY, CONTROL BOARD

MCU-30
MAIN BOARD

704-042



MCU-30

dw 8-78

PARTS OVERLAY
MCU-30 MAIN BOARD
704-046
4/1
B

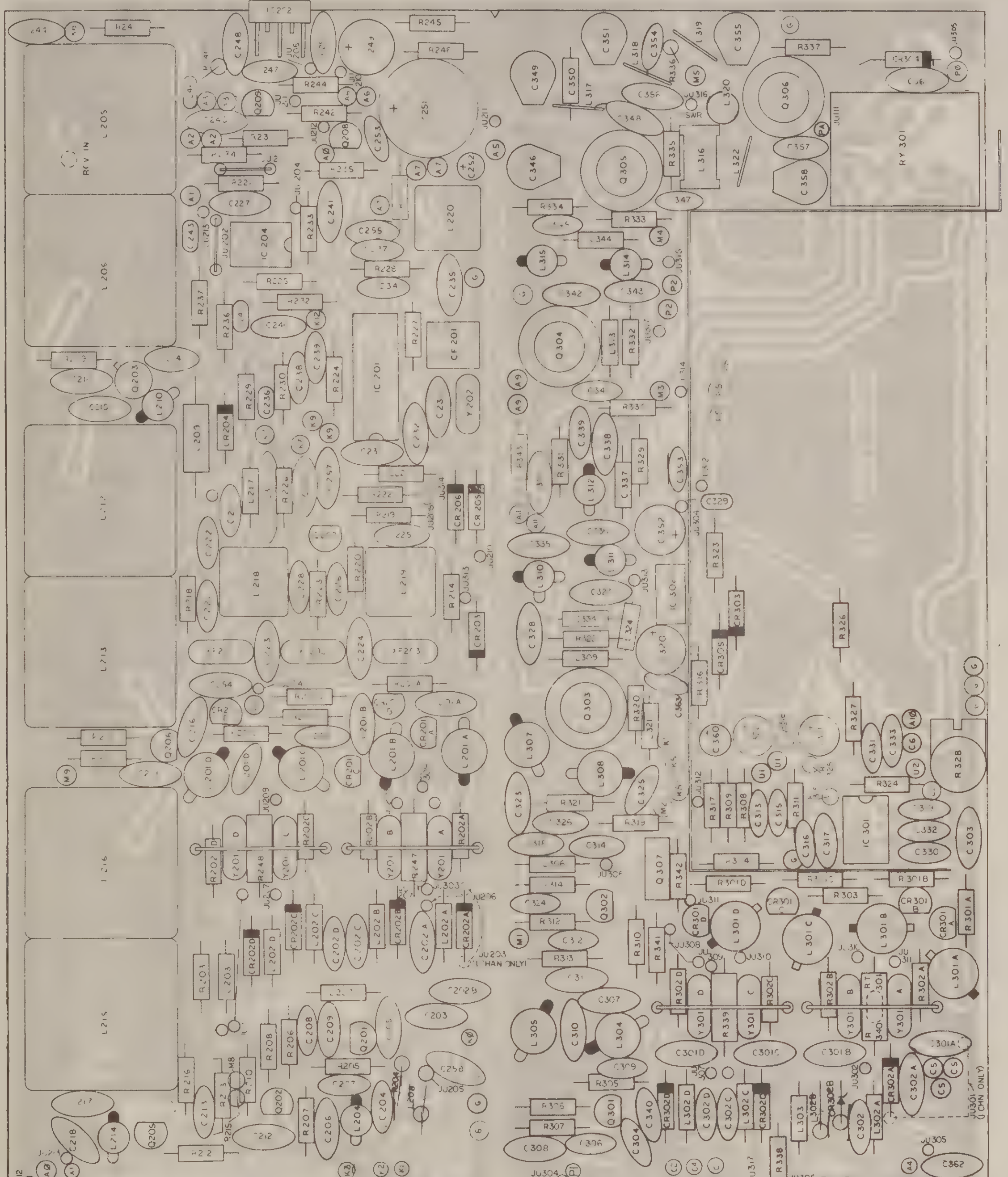
PARTS PLACEMENT
MCU 30 MAIN BOARD
704-045
4/1
B

JRB 4-78
9-78
9-?-78

704-045

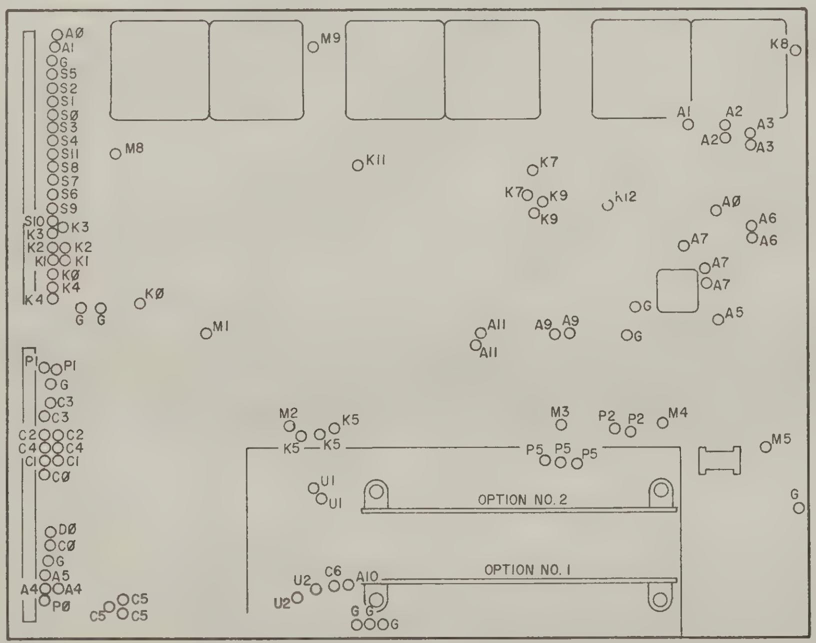
MCU-30

MAIN BOARD 704-042



DWG. NO. 304-120 SH 1 REV. A

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
—	A	RELEASE R-053	9-15-78	DAJ



	MCU 30	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: FRACT. ± — DEC. .XX± — .XXX± ANGLE ± —	APPROVALS	DATE
			DRAWN CMcC	9-14-78
			CHECKED	
		MATERIAL	DFTG. SUPV.	
		FINISH	ENGR. DAJ	9-15-78
NEXT ASSY	USED ON			
APPLICATION		DO NOT SCALE DWG.		

Regency® COMMUNICATIONS INC.
SATELLITE BEACH, FLORIDA 32937

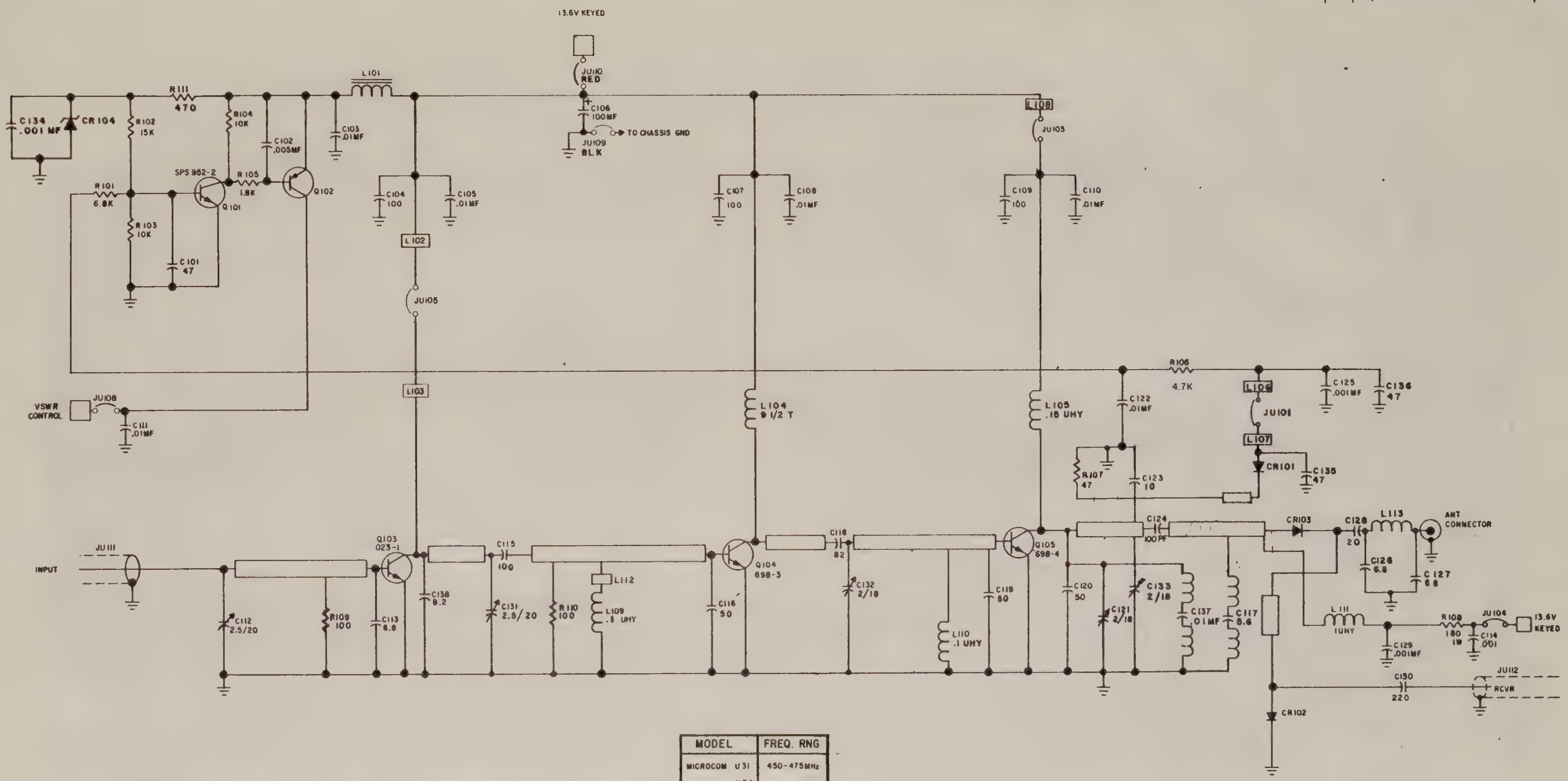
OPTION TIE POINTS
MAIN BOARD

SIZE B PART NUMBER 304-120 REV. A

SCALE SHEET 1 OF 1

604-095

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	RELEASE R 048	9-7-78	



NOTES

1. ALL CAPICATOR VALUES NOT SPECIFIED OTHERWISE ARE PICO-FARAD.
2. ALL RESISTOR VALUES NOT SPECIFIED OTHERWISE ARE OHMS, 1/4 W.
3. ⌒ DENOTES SOLDERED IN JUMPERS.
4. ☐ DENOTES CIRCUIT TIE POINT.
5. ▭ DENOTES TRANSMISSION LINE ON P.C. BOARD.
6. [L] DENOTES FERRITE BEAD.

MODEL	FREQ. RNG
MICROCOM U31 U34	450-475MHz
MICROCOM U31H U34H	470-512 MHz

REF. DES.	
LAST	NOT USED
C138	
L113	
R112	
Q105	
CR104	
JU112	JU102, JU106, JU107

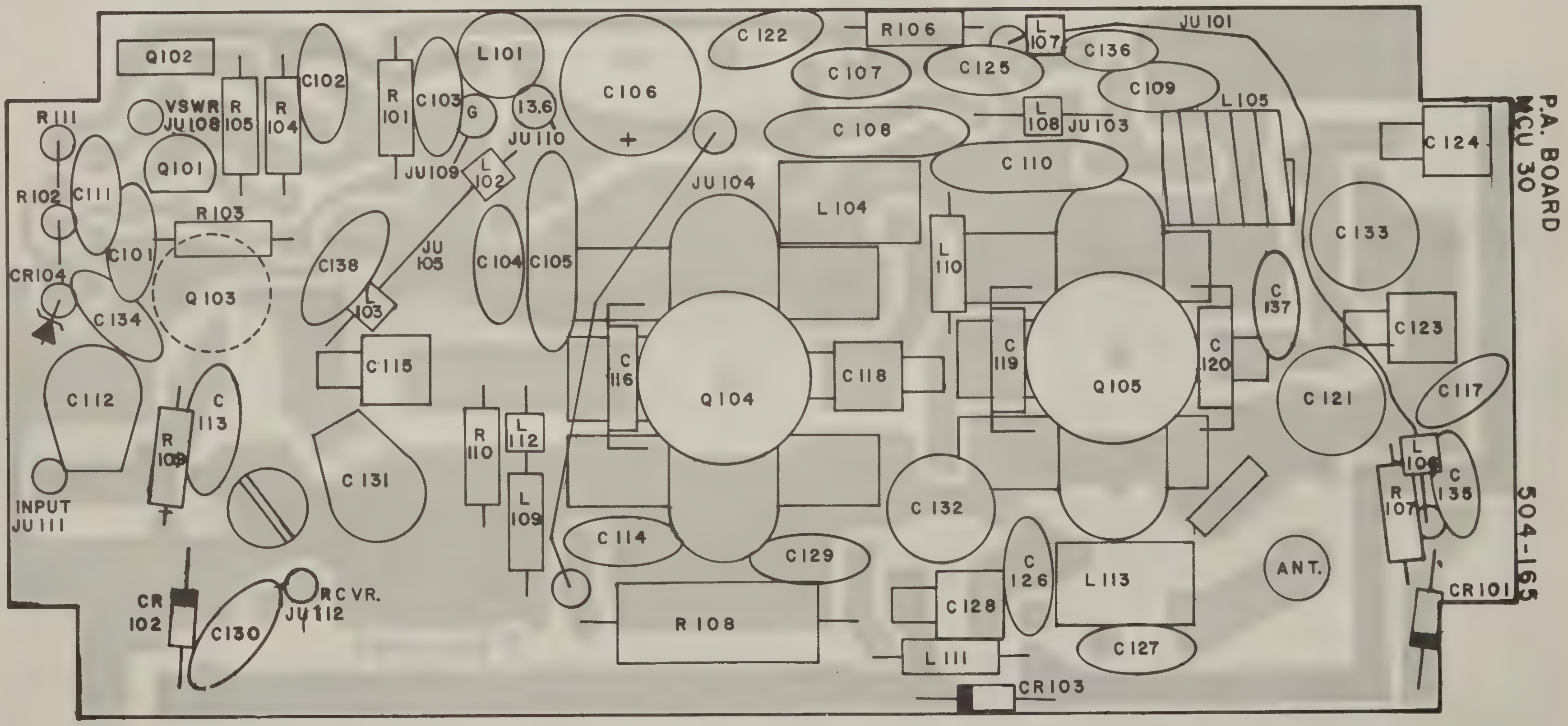
NEXT ASSY	USED ON		APPROVALS	DATE
	MCU-30 P.A.		DRAWN dw	11-22-77
			CHECKED CMC	2-14-78
		MATERIAL ~		9-7-78
		FINISH ~		9-7-78
APPLICATION		DO NOT SCALE DWG	604-096	

COMMUNICATIONS INC
SATELLITE BEACH, FLORIDA [illegible]

SCHEMATIC
MCU-30 P.A. DECK

SIZE D
DWG NO. 604-095
REV A
SCALE ~

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	RELEASE R-048	9-7-78	Daj



	MCU-30 P.A.	
NEXT ASSY	USED ON	
APPLICATION		DO NOT SCALE DWG.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.
TOLERANCES ARE:
FRACT. ± ——— DEC. .xx± ——— .xxx± ——— ANGLE ± ———
MATERIAL
FINISH

APPROVALS		DATE
DRAWN	JRB	6/1/78
CHECKED	NB	9/7/78
DFTG SUPV	MB	9/7/78
ENGR.	Daj	9-7-78

Regency COMMUNICATIONS INC.
SATELLITE BEACH, FLORIDA 32937

PARTS PLACEMENT, MCU 30 - P.A.

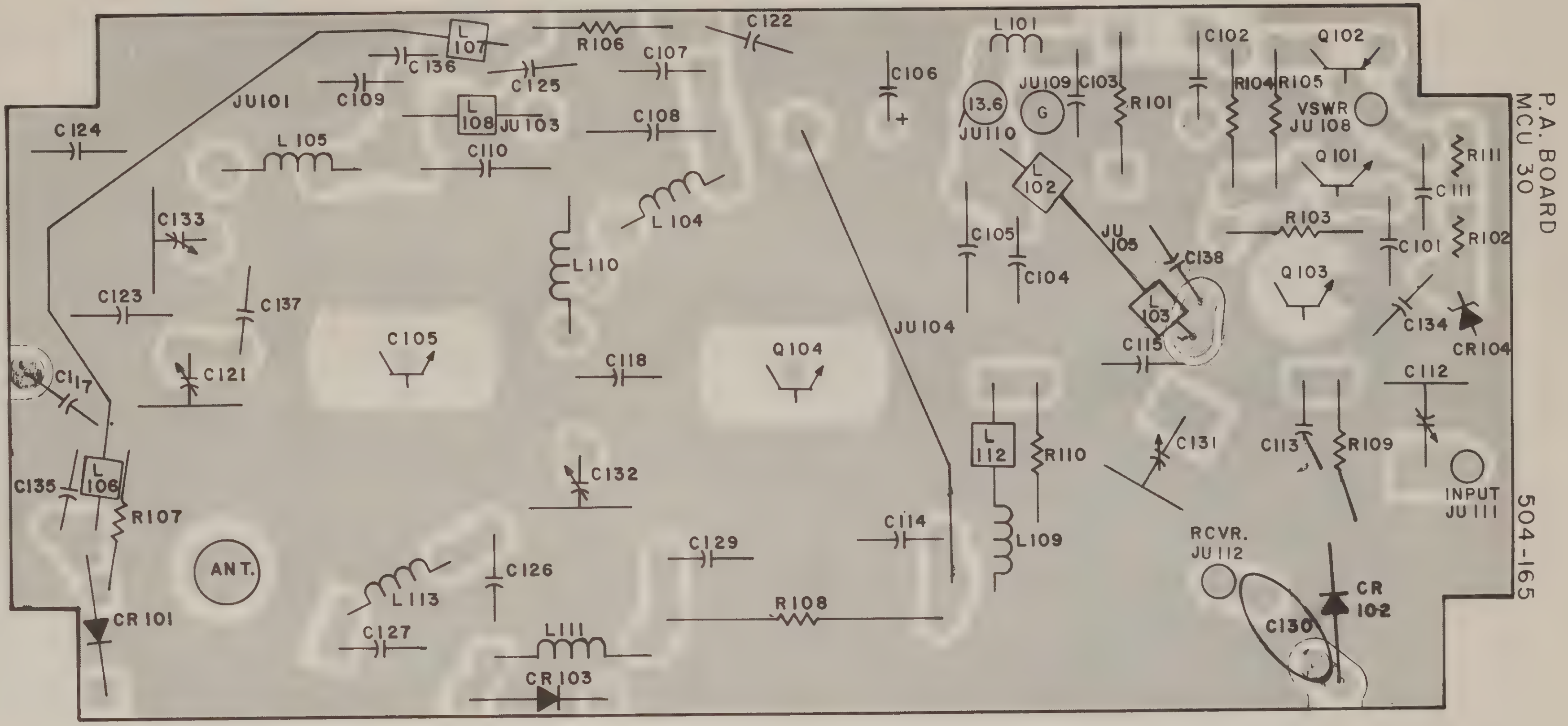
SIZE	PART NUMBER	REV.
C	504-177	A

SCALE 4/1 SHEET 1 OF 1

DWG. NO.	SH	REV.
504-177	1	A1

BISHOP GRAPHICS/ACCUPRESS
REORDER NO. A 2307

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	RELEASE R-048	9-7-78	Daj



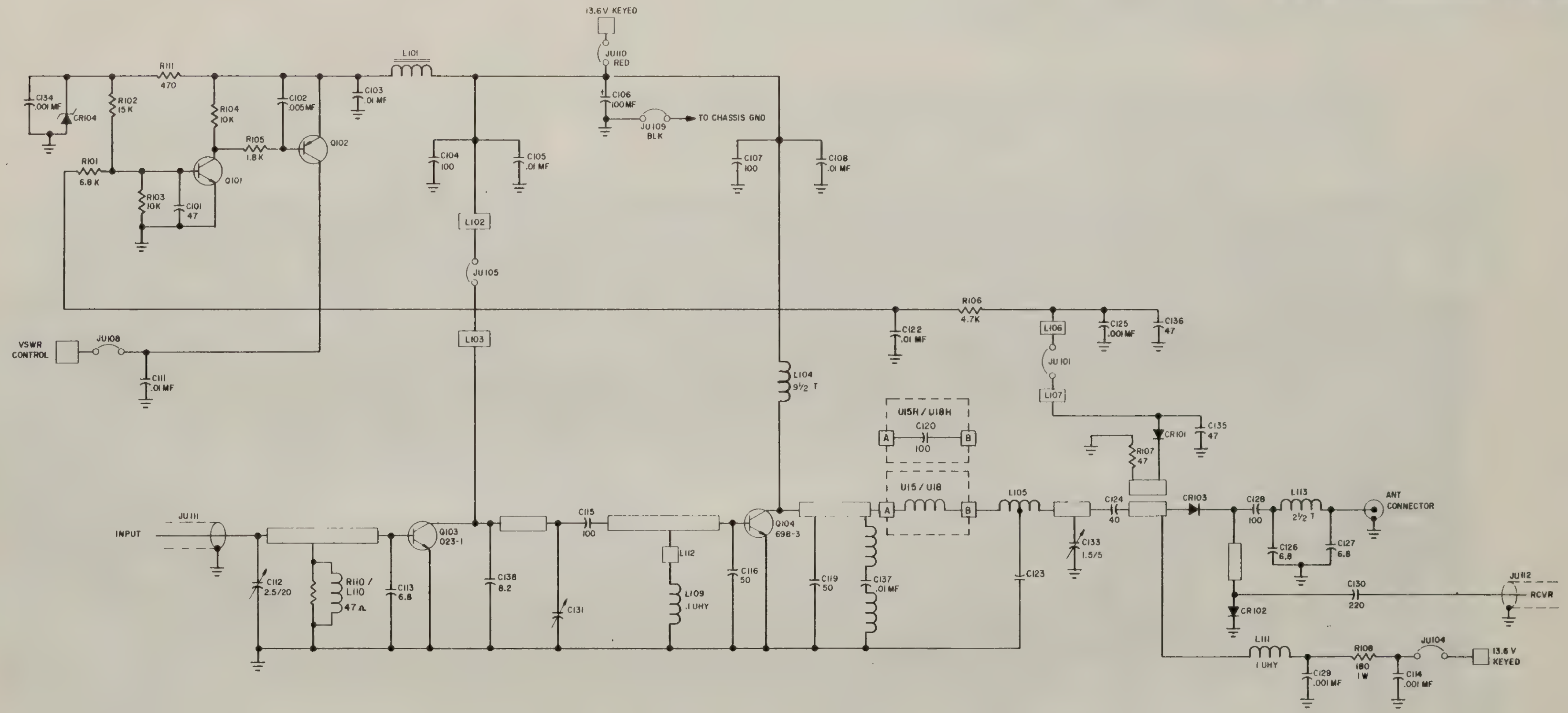
		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: FRACT. ± — DEC. .XX± — .XXX± — ANGLE ± —	APPROVALS	DATE	Regency® COMMUNICATIONS INC. SATELLITE BEACH, FLORIDA 32937
			DRAWN JRB	6/1/78	
			CHECKED NB	9/7/78	
			DFTG SUPV NB	9/7/78	PARTS OVERLAY, MCU-30 P.A.
		MATERIAL	ENGR Daj	9/7/78	
	MCU-30 P.A.	FINISH			SIZE C — PART NUMBER 504-178 — REV A
NEXT ASSY	USED ON				SCALE 4/1 — SHEET 1 OF 1
APPLICATION		DO NOT SCALE DWG.			

DWG. NO. 504-178 SH 1 REV. A1

BISHOP GRAPHICS/ACCUPRESS REORDER NO. A-2307

DWG NO 604-119 SH 1 REV B

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	RELEASE R-057	10-5-78	BAJ
	B	ENAA-500	11-6-78	BAJ



PARTS VARIABLE

MODEL		FREQ RANGE	C131	C120	C123	L 105
MICRO COM	U15	450-475 MHz	—	—	20	2110-1414-800
	U18	450-475 MHz				
MICRO COM	U15H	470-512 MHz	2 5/20	100	33	2110-1415-801
	U18H	470-512 MHz				

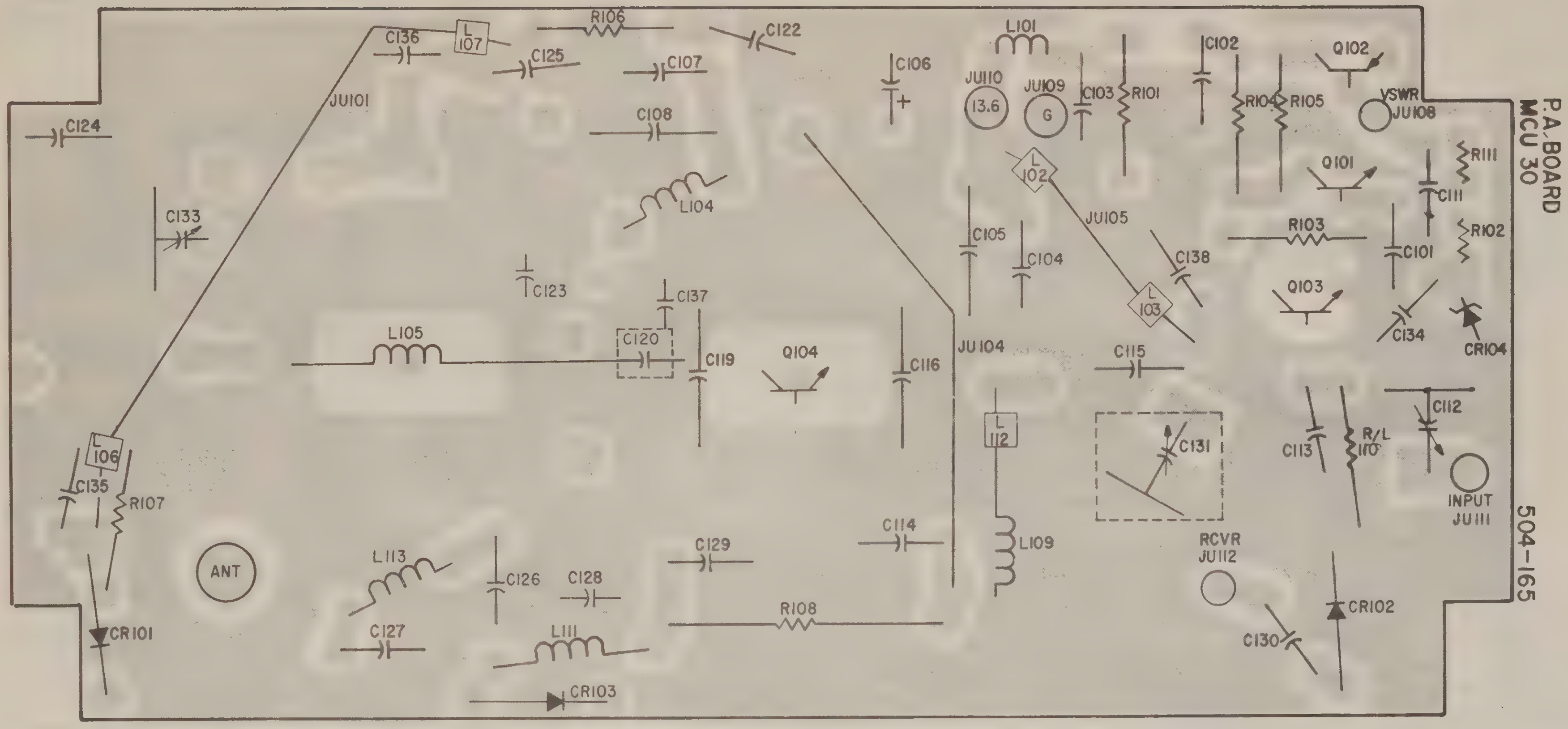
REF DESIGNATOR	
LAST	NOT USED
R111	R109
C138	C109, 110, 117, 118, 121, 132
L113	L108
CR104	
Q104	
JU112	JU102, 103, 105, 107

NOTES

1 ALL CAPACITOR VALUES NOT SPECIFIED OTHERWISE ARE PICO-FARAD
2 ALL RESISTOR VALUES NOT SPECIFIED OTHERWISE ARE OHMS, 1/4 W.
3 ○⌒○ DENOTES SOLDERED IN JUMPERS.
4 ☐ DENOTES CIRCUIT TIE POINT
5 ▭ DENOTES TRANSMISSION LINE ON P.C. BOARD.
6 [L---] DENOTES FERRITE BEAD
7 ---- DENOTES FREQ VARIATIONS

	MCU 15	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACT ± — DEC XX± — XXX± ANGLE ± —	APPROVALS	DATE	Regency COMMUNICATIONS INC. SATELLITE BEACH, FLORIDA 32937
NEXT ASSY	USED ON	MATERIAL —	DRAWN CMcC	9-78	SCHEMATIC P A DECK
APPLICATION		FINISH —	CHECKED		SIZE D DWG NUMBER 604-119 REV B
		DO NOT SCALE DWG	ENGR Baj	10-78	SCALE — SHEET OF

	A	RELEASE R-067	10-5-78	
	B	ENAA-500 dw	11-6-78	



NOTE:

1. DASH LINES REPRESENT UNIQUE U15H/U18H COMPONENTS.

		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE FRACT ± ~ DEC .XX± .XXX± ~ ANGLE ± ~	APPROVALS	DATE
			DRAWN CMcC	9-78
			CHECKED dw	10-78
		MATERIAL ~	DFTG. SUPV.	
	MCU 15	FINISH ~	ENGR. Daj	10-78
NEXT ASSY	USED ON			
APPLICATION		DO NOT SCALE DWG.		

Regency COMMUNICATIONS INC.
SATELLITE BEACH, FLORIDA

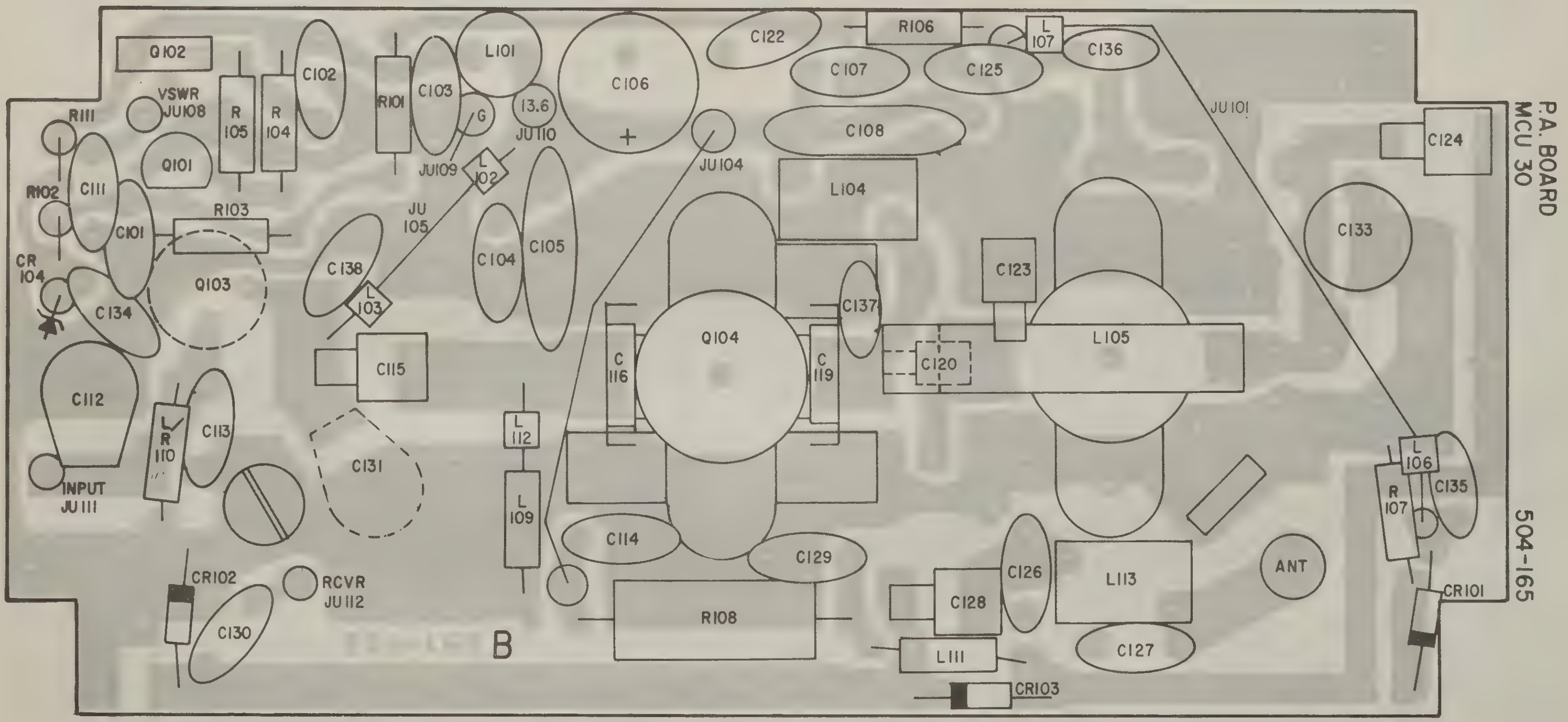
PARTS OVERLAY
P.A. BD.

SIZE C DWG NUMBER 504-224

SCALE 4/1

DWG NO 504-224 SHT 1 REV B

REVISIONS				
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	A	RELEASE R-087	10-?-78	[illegible]
	B	EMAA-900	11-6-78	[illegible]



NOTE:

1. DASHED COMPONENTS REPRESENT UNIQUE U15H / U18H PARTS PLACEMENT.

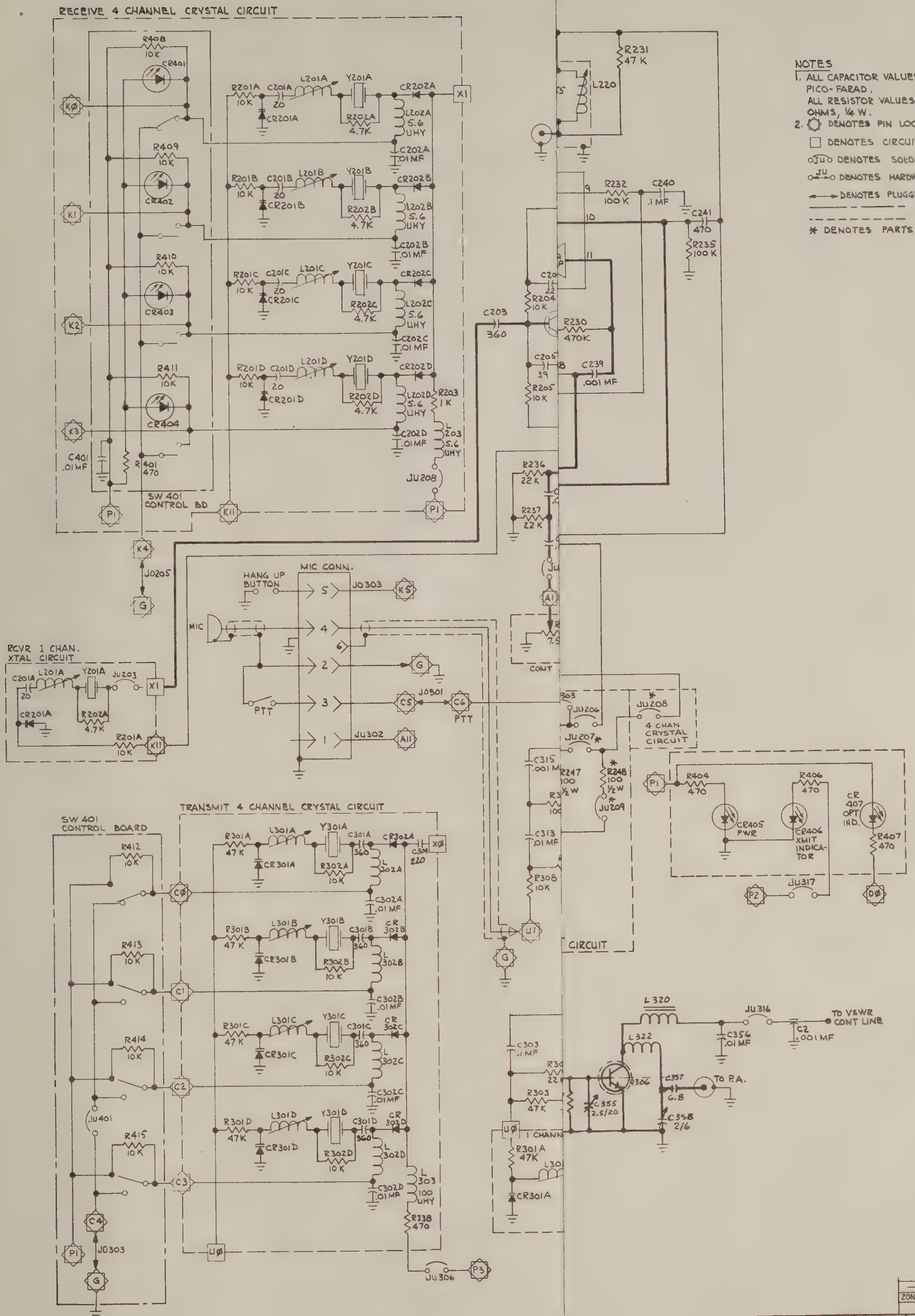
		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE FRACT ± ~ DEC XX± ~ XXX± ANGLE ± ~	APPROVALS	DATE
			DRAWN CMcC	9-78
			CHECKED dw	10-78
			OPTS. SUPV	
		MATERIAL ~	ENGR Daj	10-78
	MCU-15	FINISH ~		
NEXT ASSY	USED ON			
APPLICATION		DO NOT SCALE DWG.		

Regency COMMUNICATIONS INC.
SATELLITE BEACH, FLORIDA 32937

PARTS PLACEMENT
P. A. BD.

SIZE C
PART NUMBER 504-223
REV B
SCALE 4/1
SHEET OF

DWG NO 504-223
SH 1
REV B



NOTES

1. ALL CAPACITOR VALUES NOT SPECIFIED OTHERWISE ARE PICO-FARAD.
ALL RESISTOR VALUES NOT SPECIFIED OTHERWISE ARE OHMS, ¼ W.
2. ⬡ DENOTES PIN LOCATED ON PC BOARD.
☐ DENOTES CIRCUIT TIE POINT.
o͡JUo DENOTES SOLDERED IN JUMPERS.
o–JU–o DENOTES HARDWIRED JUMPERS-USER SELECTED.
→ DENOTES PLUGGED IN JUMPERS (OPTIONS)
— - — - DENOTES BOARD BOUNDARIES
- - - - - DENOTES OPTION VARIATIONS
* DENOTES PARTS VARIABLE WITH MODEL.

ZONE	REV	DESCRIPTION	DATE	APPROVED
—	A	RELEASE R-050		

REVISIONS

APPROVALS		DATE
DRAWN	dW/CM	8-78
CHECKED	WJM	8-78
DFTG SUPV		
ENGR	DAJ	9-13-78

Regency COMMUNICATIONS INC.
SATELLITE BEACH, FLORIDA 32937

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE
FRACT ± — DEC XX± — XXX± ANGLE ± —
MATERIAL ~
FINISH ~
DO NOT SCALE DWG.

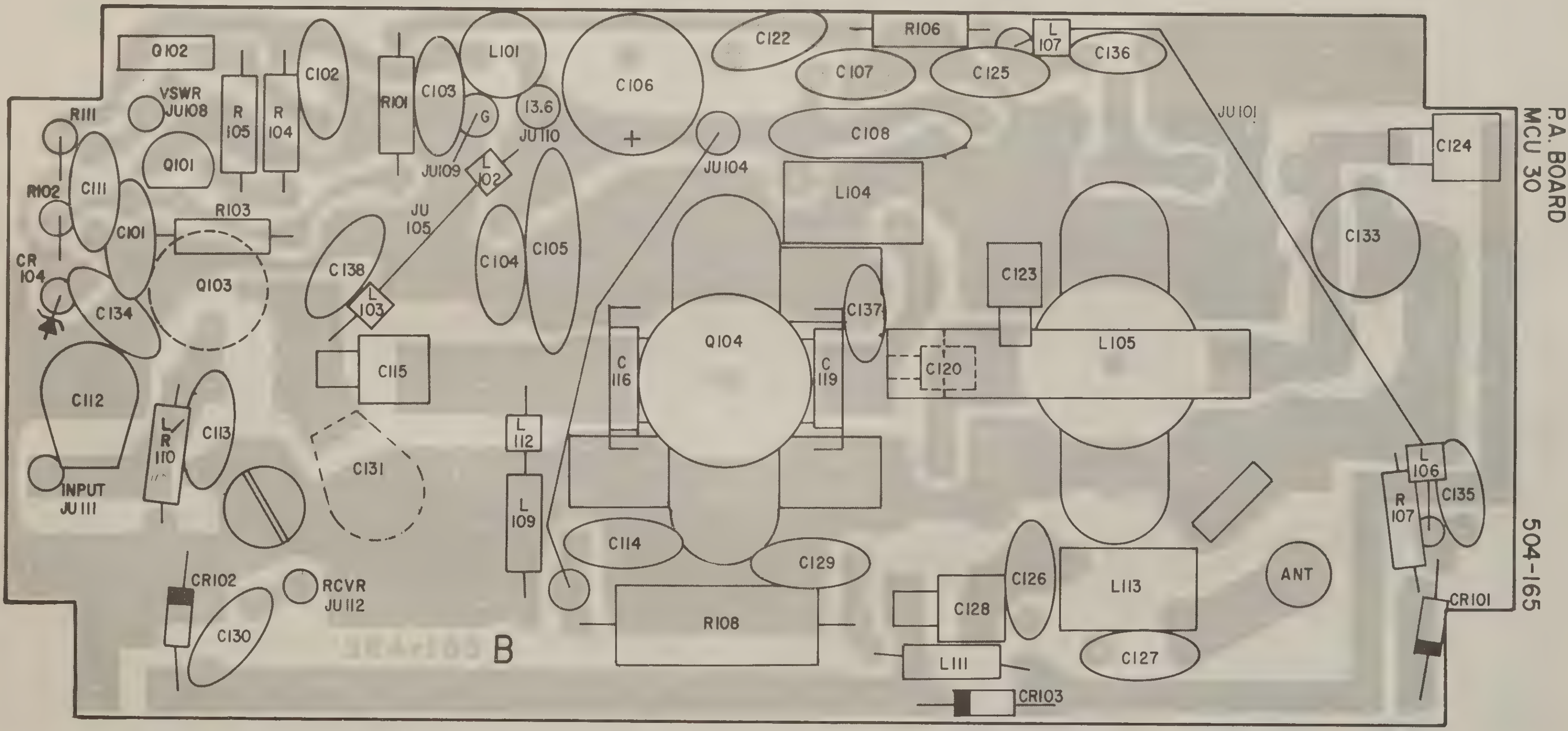
MCU 30
NEXT ASSY | USED ON
APPLICATION

SCHEMATIC
MAIN BOARD

SIZE
PART NUMBER 704-038
REV. A
SCALE —
SHEET 1 OF 1

REVISIONS

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	A	RELEASE R-087	[illegible]	[illegible]
	B	EMAA-900	11-6-78	[illegible]



NOTE:

1. DASHED COMPONENTS REPRESENT UNIQUE U15H / U18H PARTS PLACEMENT.

	MCU-15
NEXT ASSY	USED ON
APPLICATION	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.
TOLERANCES ARE:
FRACT. ± ~ DEC. .xx± ~ .xxx± ANGLE ± ~
MATERIAL ~
FINISH ~
DO NOT SCALE DWG.

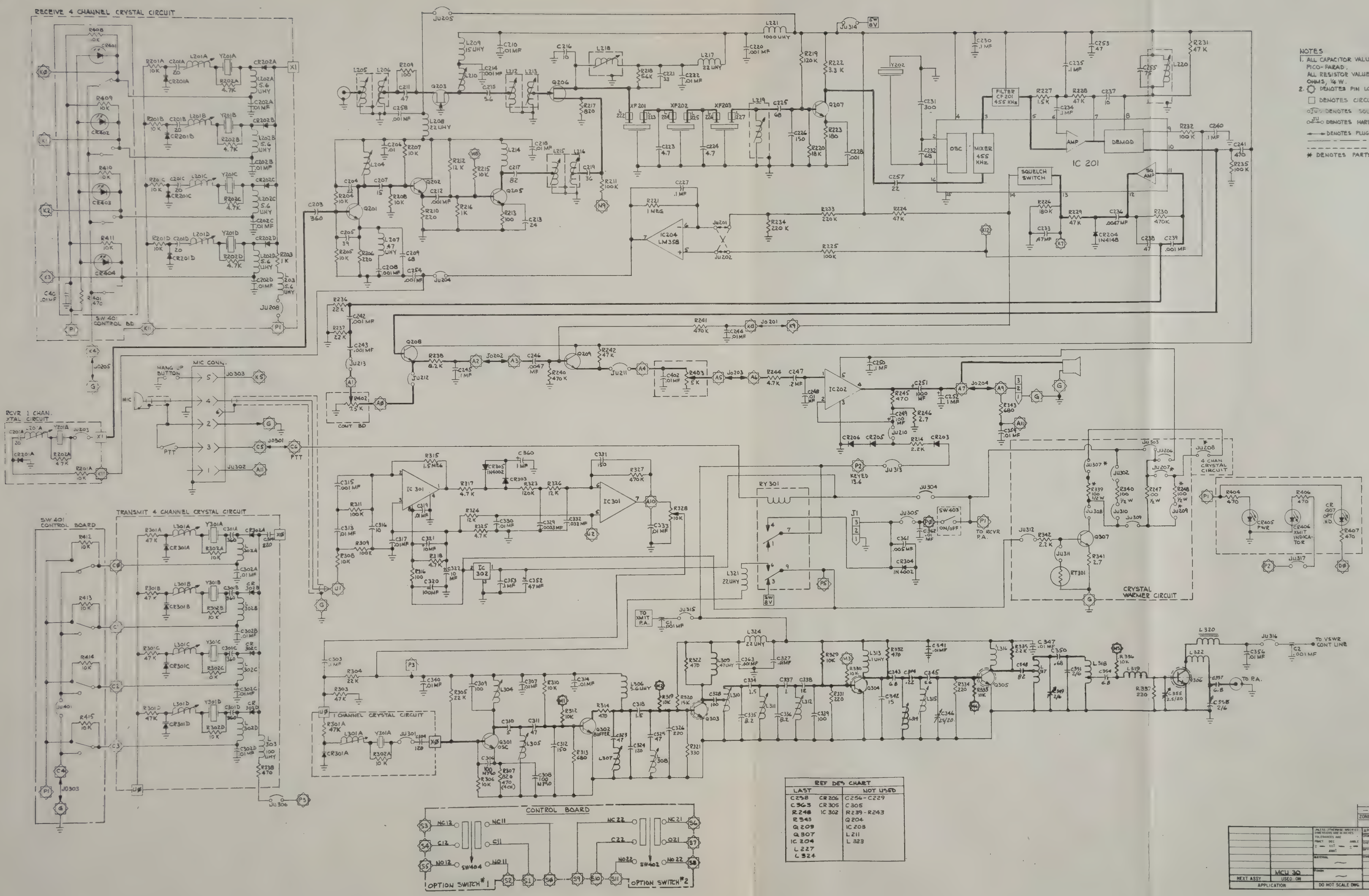
APPROVALS	DATE
DRAWN CMcC	9-78
CHECKED dw	10-78
DFTG. SUPV	
ENGR. DaJ	10-78

Regency COMMUNICATIONS INC.
SATELLITE BEACH, FLORIDA 32937

PARTS PLACEMENT
P. A. BD.

SIZE C PART NUMBER 504-223 REV B
SCALE 4/1 SHEET 1 OF 1

DWG NO 504-223 SH 1 REV B



NOTES
1. ALL CAPACITOR VALUES NOT SPECIFIED OTHERWISE ARE PICO-FARAD.
ALL RESISTOR VALUES NOT SPECIFIED OTHERWISE ARE OHMS, ¼ W.
2. ⬡ DENOTES PIN LOCATED ON PC BOARD.
☐ DENOTES CIRCUIT TIE POINT.
o͡JU͡o DENOTES SOLDERED IN JUMPERS.
o—JU—o DENOTES HARDWIRED JUMPERS-USER SELECTED.
←——→ DENOTES PLUGGED IN JUMPERS (OPTIONS).
——— - ——— - DENOTES BOARD BOUNDARIES
- - - - - - - - - DENOTES OPTION VARIATIONS
* DENOTES PARTS VARIABLE WITH MODEL.

REF DES CHART

LAST		NOT USED
C258	CR206	C256-C229
C363	CR305	C305
R248	IC302	R239-R243
R343		Q204
Q209		IC203
Q307		L211
IC204		L323
L227		
L324		

ZONE	REV	DESCRIPTION	DATE	APPROVED
—	A	RELEASE R-050		

REVISIONS

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACT ± — DEC .XX ± — ANGLE ± — .XXX ±	
MATERIAL	~
FINISH	~
APPROVALS	DATE
DRAWN dw/cm	8-78
CHECKED WJM	8-78
ENGR Daj	9-13-78

NEXT ASSY	USED ON
	MCU 30

APPLICATION

DO NOT SCALE DWG.

Regency® COMMUNICATIONS INC.
SATELLITE BEACH, FLORIDA 32937

SCHEMATIC
MAIN BOARD

PART NUMBER 704-038 REV A

SCALE — SHEET 1 OF 1

PARTS LIST

MICROCOM U30 AND MICROCOM U15

MAIN BOARD

TRANSMITTER

RESISTORS (All Resistors are ±10%, ¼W, unless otherwise noted.)

LOCATION	DESCRIPTION	PART NO.	
R301A	47K	4701-0473-042	
R301B	47K	4701-0473-042	(4ch only)
R301C	47K	4701-0473-042	(4ch only)
R301D	47K	4701-0473-042	(4ch only)
R302A	10K	4701-0103-042	
R302B	10K	4701-0103-042	(4ch only)
R302C	10K	4701-0103-042	(4ch only)
R302D	10K	4701-0103-042	(4ch only)
R303	47K	4701-0473-042	
R304	22K	4701-0223-042	
R305	22K	4701-0223-042	
R306	10K	4700-0103-042	
R307	820 Ohms	4700-0821-041	(1ch only)
R307	470 Ohms	4700-0471-042	(4ch only)
R308	10K	4701-0103-042	
R309	100K	4701-0104-042	
R310	10K	4701-0103-042	
R311	100K	4701-0104-042	
R312	10K	4701-0103-042	
R313	680 Ohms	4700-0681-042	
R314	470 Ohms	4700-0471-042	
R315	1.5M	4701-0155-042	
R316	100 Ohms	4701-0101-042	
R317	4.7K	4701-0472-042	
R318	4.7K	4701-0472-042	
R319	10K	4701-0103-042	
R320	15K	4701-0153-042	
R321	330 Ohms	4700-0331-042	
R322	470 Ohms	4700-0471-042	
R323	120K	4701-0124-042	
R324	12K	4701-0123-042	
R325	4.7K	4701-0472-042	
R326	12K	4701-0123-042	
R327	470K	4701-0474-042	
R328	10K var	4751-0103-001	
R329	10K	4701-0103-042	
R330	10K	4701-0103-042	
R331	220 Ohms	4700-0221-042	
R332	470 Ohms	4700-0471-042	
R333	10K	4701-0103-042	
R334	220 Ohms	4700-0221-042	
R335	2.2K	4700-0222-042	
R336	10K	4701-0103-042	
R337	220 Ohms	4700-0221-042	
R338	470 Ohms	4700-0471-042	(4ch only)
R339	100 Ohms 10%,½W	4700-0101-044	(4ch only)
R340	100 Ohms 10%,½W	4700-0101-044	

LOCATION	DESCRIPTION	PART NO.	
R341	2.7 Ohms	4700-0279-042	
R342	2.2K	4700-0222-042	
R343	680 Ohms	4701-0681-042	
CAPACITORS			
C301A	360PF 5% 50V(MICA)	1506-0361-550	
C301B	360PF 5% 50V(MICA)	1506-0361-550	(4ch only)
C301C	360PF 5% 50V(MICA)	1506-0361-550	(4ch only)
C301D	360PF 5% 50V(MICA)	1506-0361-550	(4ch only)
C302A	.01MF 50V +8-2(DISC)	1503-0103-007	(4ch only)
C302B	.01MF 50V +8-2(DISC)	1503-0103-007	(4ch only)
C302C	.01MF 50V +8-2(DISC)	1503-0103-007	(4ch only)
C302D	.01MF 50V +8-2(DISC)	1503-0103-007	(4ch only)
C303	.1MF 20% 12V(DISC)	1502-0104-005	
C304	120PF 5% 50V(MICA)	1506-0121-550	(1ch only)
C304	220 PF 5% 50V(MICA)	1506-0221-550	(4ch only)
C305	Not Used		
C306	100PF 10% 50V(DISC)	1525-0101-004	
C307	.01MF +8-2 50V(DISC)	1503-0103-007	
C308	100PF 10% 50V(DISC)	1525-0101-004	
C309	100PF 5% 50V(MICA)	1506-0101-550	
C310	5PF 10% 500V(DISC)	1500-0050-905	
C311	47PF 5% 50V(DISC)	1524-0470-002	
C312	150PF 5% 50V(MICA)	1506-0151-550	
C313	.01MF +8-2 50V(DISC)	1503-0103-007	
C314	.01MF +8-2 50V(DISC)	1503-0103-007	
C315	.001MF +8-2 50V(DISC)	1503-0102-003	
C316	10PF 10% 500V(DISC)	1500-0100-905	
C317	.01MF +8-2 50V(DISC)	1503-0103-007	
C318	1.5PF 2.5 500V(DISC)	1500-0159-205	
C319	.01MF +8-2 50V(DISC)	1503-0103-007	
C320	100MF 10V(ELEC)	1513-0101-001	
C321	10MF 25V(ELEC)	1513-0100-003	
C322	10MF 25V(ELEC)	1513-0100-003	
C323	47PF 5% 50V(DISC)	1524-0470-002	
C324	120PF 5% 50V(MICA)	1506-0121-550	
C325	47PF 5% 50V(DISC)	1524-0470-002	
C326	220PF 5% 50V(MICA)	1506-0221-550	
C327	.01MF +8-2 50V(DISC)	1503-0103-007	
C328	100PF 5% 50V(MICA)	1506-0101-550	
C329	.0033MF 10% 100VM(MY)	1508-0332-610	
C330	.01MF +8-2 50V (DISC)	1503-0103-007	
C331	150 PF 5% 50V (MICA)	1506-0151-550	
C332	.033MF 10% 100V(MY)	1508-0333-610	
C333	.01MF +8-2 50V(DISC)	1503-0103-007	
C334	1PF 10%(MUD)	1510-0010-900	
C335	8.2PF 10% 500V(DISC)	1500-0829-905	
C336	8.2PF 10% 500V(DISC)	1500-0829-905	
C337	1PF 10% (MUD)	1510-0010-900	
C338	12PF 10% 500V(DISC)	1500-0120-605	
C339	100PF 5% 50V(MICA)	1506-0101-550	
C340	.01MF +8-2 50V(DISC)	1503-0103-007	

LOCATION	DESCRIPTION	PART NO.
C341	.01MF +8-2 50V(DISC)	1503-0103-007
C342	15PF 10% 500V(DISC)	1501-0150-001
C343	6.8PF 10% 500V(DISC)	1500-0689-905
C344	22PF 10%(MUD)	1510-0228-900
C345	5.6PF 10% 500V(DISC)	1500-0569-905
C346	2.5-20PF TRIM	1517-0000-034
C347	.01MF +8-2 50V(DISC)	1503-0103-007
C348	82PF 5% 50V(MICA)	1506-0820-550
C349	2-6PF TRIM	1517-0000-035
C350	.68PF 10%(MUD)	1510-0688-900
C351	2-6PF TRIM	1517-0000-035
C352	47MF 16V(ELEC)	1513-0470-002
C353	.1MF 20% 12V(MICA)	1502-0104-005
C354	6.8PF 10% 500V(DISC)	1500-0689-905
C355	2.5-20PF TRIM	1517-0000-034
C356	.01MF 8+-2 50V(DISC)	1503-0103-007
C357	6.8PF 10% 500V(DISC)	1500-0689-905
C358	2-6PF TRIM	1517-0000-035
C359	.01MF +8-2 50V(DISC)	1503-0103-007
C360	1MF 50V(ELEC)	1513-0010-004
C361	.005MF +8-2 50V(DISC)	1503-0502-005
C362	.01MF +8-2 50V(DISC)	1503-0103-007
C363	.001MF +8-2 50V(DISC)	1503-0102-003

COILS

L301A	coil, RF variable tap	1800-3247-201	
L301B	coil, RF variable tap	1800-3247-201	(4ch only)
L301C	coil, RF variable tap	1800-3247-201	(4ch only)
L301D	coil, RF variable tap	1800-3247-201	(4ch only)
L302A	choke 100 uhy	1802-0101-008	(4ch only)
L302B	choke 100 uhy	1802-0101-008	(4ch only)
L302C	choke 100 uhy	1802-0101-008	(4ch only)
L302D	choke 100 uhy	1802-0101-008	(4ch only)
L303	choke 100 uhy	1802-0101-008	(4ch only)
L304	coil RF variable	1800-3191-404	
L305	coil RF variable	1800-3191-405	
L306	choke 5.6 uhy	1802-0569-008	
L307	coil RF variable	1800-3191-405	
L308	coil RF variable	1800-3191-405	
L309	choke .47 uhy	1802-0478-008	
L310	coil RF variable	1800-5100-524	
L311	coil RF variable	1800-4100-520	
L312	coil RF variable	1800-5100-520	
L313	choke .1 uhy	1802-0108-008	
L314	coil RF variable	1800-5100-511	
L315	coil RF variable	1800-5100-511	
L316	choke	1803-5125-904	
L317	coil RF loop	1801-3247-401	
L318	coil RF loop	1801-3247-401	

LOCATION	DESCRIPTION	PART NO.	
L319	coil RF loop	1801-3247-401	
L320	bead, choke	2502-3254-101	
L321	choke 22 uhy	1802-0220-008	
L322	coil RF loop	1802-3247-401	
L323	Not Used		
L324	choke 22 uhy	1802-0220-008	

TRANSISTORS

Q301	NPN SPS-1476	4801-0000-003	
Q302	NPN SPS-1473	4801-0000-035	
Q303	301-696-5	4804-3169-605	
Q304	301-696-5	4804-3169-605	(lo range only)
Q304	301-696-7	4804-3169-607	(hi range only)
Q305	301-696-7	4808-3169-607	
Q306	301-696-7	4808-3169-607	
Q307	Darlington D40C1	4814-0000-002	

DIODES

CR301A	varicap MV1172	4809-0000-001	
CR301B	varicap MV1172	4809-0000-001	(4ch only)
CR301C	varicap MV1172	4809-0000-001	(4ch only)
CR301D	varicap MV1172	4809-0000-001	(4ch only)
CR302A	germanium	4807-1233-900	(4ch only)
CR302B	germanium	4807-1233-900	(4ch only)
CR302C	germanium	4807-1233-900	(4ch only)
CR302D	germanium	4807-1233-900	(4ch only)
CR303	IN4002	4806-0000-004	
CR304	IN4002	4806-0000-004	
CR305	IN4002	4806-0000-004	

INTEGRATED CIRCUITS

IC301	LM 358 N	3130-3167-909
IC302	8V reg LM341P-8	3130-0000-023

MISCELLANEOUS

RT301	thermistor	5300-0000-001
RY301	relay 12V	4500-3251-900

RECEIVER

RESISTORS (All Resistors are ±10%, ¼W, unless otherwise noted.)

LOCATION	DESCRIPTION	PART NO.
R201A	10K	4701-0103-042
R201B	10K	4701-0103-042 (4ch only)
R201C	10K	4701-0103-042 (4ch only)
R201D	10K	4701-0103-042 (4ch only)
R202A	4.7K	4701-0472-042
R202B	4.7K	4701-0472-042 (4ch only)
R202C	4.7K	4701-0472-042 (4ch only)
R202D	4.7K	4701-0472-042 (4ch only)
R203	1K	4701-0102-042 (4ch only)
R204	10K	4701-0103-042
R205	10K	4701-0103-042
R206	220 Ohms	4700-0221-042
R207	10K	4700-0103-042
R208	10K	4700-0103-042
R209	100 Ohms	4700-0101-042
R210	220 Ohms	4700-0221-042
R211	100K	4701-0104-042
R212	12K	4701-0123-042
R213	100 Ohms	4700-0101-042
R214	330 Ohms	4701-0331-042
R215	10K	4701-0103-042
R216	1K	4700-0102-042
R217	820 Ohms	4700-0821-042
R218	5.6K	4701-0562-042
R219	120K	4701-0124-042
R220	18K	4701-0183-042
R221	1 meg	4701-0105-042
R222	3.3K	4701-0332-042
R223	180 Ohms	4700-0181-042
R224	47K	4701-0473-042
R225	100K	4701-0104-042
R226	180K	4701-0184-042
R227	1.5K	4701-0152-042
R228	47K	4701-0473-042
R229	47K	4701-0473-042
R230	470K	4701-0474-042
R231	47K	4701-0473-042
R232	100K	4701-0104-042
R233	220K	4701-0224-042
R234	220K	4701-0224-042
R235	100K	4701-0104-042
R236	22K	4701-0223-042
R237	22K	4701-0223-042
R238	8.2K	4701-0822-042
R239	Not Used	
R240	470K	4701-0474-042

LOCATION	DESCRIPTION	PART NO.	
R241	470K	4701-0474-042	
R242	47K	4701-0473-042	
R243	Not Used		
R244	4.7K	4701-0472-042	
R245	470 Ohms	4701-0471-042	
R246	2.7 Ohms	4701-0279-042	
R247	100 Ohms 10%,½W	4700-0101-044	
R248	100 Ohms 10%,½W	4700-0101-044	(4ch only)

CAPACITORS

C201A	20PF 10% 50V(DISC)	1500-0200-650	
C201B	20PF 10% 50V(DISC)	1500-0200-650	(4ch only)
C201C	20PF 10% 50V(DISC)	1500-0200-650	(4ch only)
C201D	20PF 10% 50V(DISC)	1500-0200-650	(4ch only)
C202A	.01MF +8-2 50V(DISC)	1503-0103-007	(4ch only)
C202B	.01MF +8-2 50V(DISC)	1503-0103-007	(4ch only)
C202C	.01MF +8-2 50V(DISC)	1503-0103-007	(4ch only)
C202D	.01MF +8-2 50V(DISC)	1503-0103-007	(4ch only)
C203	360PF 5% 50V(MICA)	1506-0361-550	
C204	22PF 10% 50V(MICA)	1500-0220-650	(lo range only)
C204	20PF 10% 50V(DISC)	1500-0200-650	(hi range only)
C205	39PF 5% 500V(DISC)	1500-0390-505	
C206	.01MF +8-2% 500V(DISC)	1503-0103-007	
C207	15PF 10% 500V(DISC)	1501-0150-001	
C208	.001MF +8-2%(DISC)	1503-0102-003	
C209	68PF 5% 50V(DISC)	1524-0680-002	
C210	.01MF +9-2% 500V(DISC)	1503-0103-007	
C211	47PF 5% 50V(DISC)	1524-0470-002	
C212	.001MF +8-2%(DISC)	1503-0102-003	
C213	24PF 10% 50V(DISC)	1500-0240-650	
C214	.001MF +8-2%(DISC)	1503-0102-003	
C215	5.6PF 10% 500V(DISC)	1500-0569-905	
C216	10Pf 10% 500V(DISC)	1500-0100-905	
C217	82PF 5% 50V(MICA)	1506-0820-550	
C218	.01MF +8-2% 50V(DISC)	1503-0103-007	
C219	36PF 5% 50V(DISC)	1500-0360-550	
C220	.001MF +8-2%(DISC)	1503-0102-003	
C221	33PF 10% 50V(DISC)	1500-0330-650	
C222	.01MF +8-2% 50V(DISC)	1503-0103-007	
C223	4.7PF 10% 500V(DISC)	1500-0479-905	
C224	4.7PF 10% 500V(DISC)	1500-0479-905	
C225	68PF 5% 50V(DISC)	1524-0680-002	
C226	150PF 5% 50V(MICA)	1506-0151-550	
C227	.1MF 20% 12V(DISC)	1502-0104-005	
C228	.001MF +8-2%(DISC)	1503-0102-003	
C229			
C230	.1MF 20% 12V(DISC)	1502-0104-005	
C231	300PF 5% 50V(MICA)	1506-0402-550	
C232	68PF 5% 50V(DISC)	1524-0680-002	
C233	.47MF +8-2% 12V(DISC)	1502-0474-006	
C234	.1MF 20% 12V(DISC)	1502-0104-005	
C235	.1MF 20% 12V(DISC)	1502-0104-005	

LOCATION	DESCRIPTION	PART NO.	
C236	.0047MF 10% 100V(MYLAR)	1508-0472-610	
C237	10PF 10% 500V(DISC)	1500-1000-905	
C238	47PF 5% 50V(DISC)	1524-0470-002	
C239	.001 +8-2% 50V(DISC)	1503-0102-003	
C240	.1MF 20% 12V(DISC)	1502-0104-005	
C241	470PF 5% 50V(MICA)	1506-0471-550	
C242	.001MF 10% 100V(MYLAR)	1508-0102-610	
C243	.001MF 10% 100V(MYLAR)	1508-0102-610	
C244	.01MF +8-2% 500V(DISC)	1503-0103-007	
C245	.1MF 20% 12V(DISC)	1502-0104-005	
C246	.0047MF 10% 100V(MYLAR)	1508-0472-610	
C247	.2MF +8-2% 50V(DISC)	1502=0204-006	
C248	.01MF +8-2% 50V(DISC)	1503-0103-007	
C249	100 MF 16V(ELEC)	1513-0101-002	
C250	.1MF 20% 12V(DISC)	1502-0104-005	
C251	1000MF 16V(ELEC)	1513-0102-002	
C252	1MF 20% 15V(TANT)	1515-0010-003	
C253	47PF 5% 50V(DISC)	1524-0470-002	
C254	.001MF +8-2%(DISC)	1503-0102-003	
C255	75PF 5% 50V(DISC)	1524-0750-002	
C256	Not Used		
C257	22PF 10% 50V(DISC)	1500-0220-650	
C258	.001 MF +8-2% 50V(DISC)	1503-0102-003	
DIODES			
CR201A	Varicap MV1172	4809-0000-001	
CR201B	Varicap MV1172	4809-0000-001	(4ch only)
CR201C	Varicap MV1172	4809-0000-001	(4ch only)
CR201D	Varicap MV1172	4809-0000-001	(4ch only)
CR202A	Germanium	4807-1233-900	(4ch only)
CR202B	Germanium	4807-1233-900	(4ch only)
CR202C	Germanium	4807-1233-900	(4ch only)
CR202D	Germanium	4807-1233-900	(4ch only)
CR203	IN4148	4805-1241-200	
CR204	IN4148	4805-1241-200	
CR205	IN4148	4805-1241-200	
CR206	IN4148	4805-1241-200	
TRANSISTORS			
Q201	NPN 2N5130	4801-0000-095	
Q202	NPN SPS-1476	4801-0000-003	
Q203	FET U310	4811-3406-200	

LOCATION	DESCRIPTION	PART NO.
Q204	Not Used	
Q205	NPN SPS-1476	4801-0000-003
Q206	FET 2N5668	4811-0000-030
Q207	NPN SPS-1473	4801-0000-035
Q208	NPN SPS-952	4801-0000-010
Q209	NPN SPS-952	4801-0000-010

INTEGRATED CIRCUITS

IC201	FM	3130-5127-100
IC202	TDA 2002 AD	3130-5407-602
IC203	Not Used	
IC204	LM358N	3130-3167-909

FILTERS

XF201	filter,Xtal 2P 10.7 MHz	2705-3232-200
XF202	filter,Xtal 2p 10.7 MHz	2705-1306-600
XF203	filter, Xtal 2P 10.7 MHz	2705-3232-200
CF201	filter, ceramic	2700-3209-500

CRYSTAL

Y202	10.245 MHz	2301-3151-601

COILS

L201A	coil, variable	1800-3191-406	
L201B	coil, variable	1800-3191-406	(4ch only)
L201C	coil, variable	1800-3191-406	(4ch only)
L201D	coil, variable	1800-3191-406	(4ch only)
L202A	choke, 5.6 uhy	1802-0569-008	(4ch only)
L202B	choke, 5.6 uhy	1802-0569-008	(4ch only)
L202C	choke, 5.6 uhy	1802-0569-008	(4ch only)
L202D	choke, 5.6 uhy	1802-0569-008	(4ch only)
L203	choke, 5.6 uhy	1802-0569-008	(4ch only)
L204	coil, variable	1800-5100-521	
L205	coil, variable	1800-5129-101	(lo range only)
L205	coil, variable	1800-5129-105	(hi range only)
L206	coil, variable	1800-5129-102	(lo range only)
L206	coil, variable	1800-5129-106	(hi range only)
L207	choke, .47 uhy	1802-0478-006	
L208	choke, 22 uhy	1802-0220-008	
L209	choke, 15 uhy	1802-0150-004	

LOCATION	DESCRIPTION	PART NO.	
L210	Choke, RF	1800-5100-522	
L211	not used		
L212	coil, variable	1800-5129-103	(lo range only)
L212	coil, variable	1800-5129-107	(hi range only)
L213	coil, variable	1800-5129-102	(lo range only)
L213	coil, variable	1800-5129-106	(hi range only)
L214	choke, RF	1800-5100-523	
L215	coil, variable	1800-5129-104	(lo range only)
L215	coil, variable	1800-5129-108	(hi range only)
L216	coil, variable	1800-5129-102	(lo range only)
L216	coil, variable	1800-5129-109	(hi range only)
L217	choke, 22 uhy	1802-0220-008	
L218	coil 10.7 IF	1800-3248-001	
L219	coil 10.7 IF	1800-3248-001	
L220	coil	1800-3409-201	
L221	choke, 1000 uhy	1800-3409-201	
L222	Bead choke	2502-0000-001	
L223	Bead choke	2502-0000-001	
L224	Bead choke	2502-0000-001	
L225	Bead choke	2502-0000-001	
L226	Bead choke	2502-0000-001	
L227	Bead choke	2502-0000-001	

PARTS LIST

MICROCOM U30

POWER AMPLIFIER

RESISTORS (All Resistors are ±10%, ¼W, unless otherwise noted)

LOCATION	DESCRIPTION	PART NO.
R101	6.8K	4700-0682-042
R102	15K	4701-0153-042
R103	10K	4701-0103-042
R104	10K	4700-0103-042
R105	1.8K	4701-0182-042
R106	4.7K	4700-0472-042
R107	47 Ohm	4700-0470-042
R108	180 Ohm	4701-0181-045
R109	100 Ohm	4700-0101-042
R110	100 Ohm	4700-0101-042
R111	470 Ohm	4700-0471-042

CAPACITORS

C101	.47PF 50V 5%	1524-0470-002	
C102	.005MF 50V +8-2%(DISC)	1503-0502-005	
C103	.01MF 50V +8-2%(DISC)	1503-0103-007	
C104	100PF 500V 5%(MICA)	1504-0101-505	
C105	.01MF 500V +8-2%(DISC)	1503-0103-008	
C106	100MF 16V 85D(ELEC)	1513-0101-002	
C107	100PF 500V 5%(MICA)	1504-0101-505	
C108	.01MF 500V +8-2%(DISC)	1503-0103-008	
C109	100PF 500V 5%(MICA)	1504-0101-505	
C110	.01MF 500V +8-2%(DISC)	1503-0103-008	
C111	.01MF 50V +8-2%(DISC)	1503-0103-007	
C112	2.5-20PF (TRIM)	1517-0000-034	
C113	6.8PF 500V 10%(DISC)	1500-0689-905	
C114	.001MF 50V +8-2%(DISC)	1503-0102-003	
C115	100PF(MICA)	1522-0101-007	
C116	50PF(MICA)	1522-5418-301	
C117	5.6PF 5%(DISC)	1501-0569-023	
C118	82PF(MICA)	1522-0820-007	
C119	50PF(MICA)	1522-5418-301	
C120	50PF(MICA)	1522-5418-301	
C121	2-18PF(TRIM)	1517-0000-041	(U31H,U34H only)
C122	.01MF 50V +8-2%(DISC)	1503-0103-007	
C123	10PF(MICA)	1522-0100-006	
C124	100PF(MICA)	1522-0101-007	
C125	.001MF 50V +8-2%(DISC)	1503-0102-003	
C126	6.8PF 500V 10%(DISC)	1500-0689-905	
C127	6.8PF 500V 10%(DISC)	1500-0689-905	
C128	20PF(MICA)	1522-0200-006	
C129	.001MF 50V +8-2%(DISC)	1503-0102-003	
C130	220PF 50V 5%(MICA)	1506-0221-550	

LOCATION	DESCRIPTION	PART NO.	
C131	2.5-20PF(TRIM)	1517-0000-034	(U31H,U34H only
C132	2-18PF(TRIM)	1517-0000-041	
C133	2-18PF(TRIM)	1517-0000-041	
C134	.001MF 50V +8-2%(DISC)	1503-0102-003	
C135	47PF 50V 5%(DISC)	1524-0470-002	
C136	47PF 50V 5%(DISC)	1524-0470-002	
C137	.01PF 100V +8-2%(DISC)	1501-0103-009	
C138	8.2PF 500V 10%(DISC)	1500-0829-905	
DIODES			
CR101	IN4148 (selected	4805-1241-200	
CR102	Pin, UM9484	4815-3408-601	
CR103	Pin, UM9484	4815-3408-601	
CR104	Zener, 5.1V 5%	4808-0000-031	
COILS			
L101	Bead, choke	2502-3254-101	
L102	Bead, choke	2502-0000-001	
L103	Bead, choke	2502-0000-001	
L104	RF choke	1803-5125-904	
L105	Choke, .15 uhy	1803-3269-000	
L106	Bead, choke	2502-0000-001	
L107	Bead, choke	2502-0000-001	
L108	Bead, choke	2502-0000-001	
L109	Choke, .1 uhy	1802-0108-008	
L110	Choke, .1 uhy	1802-0108-008	
L111	RF choke 1 uhy	1802-0010-009	
L112	Bead, choke	2502-0000-001	
L113	Choke, LM-2	1803-5125-907	
TRANSISTORS			
Q101	NPN SPS-952-2	4801-0000-016	
Q102	PNP SJE-1608	4802-0000-003	
Q103	304-023-1	4804-3402-301	
Q104	302-690-3	4804-3269-803	
Q105	302-698-4	4804-3269-804	
CHASSIS			
C1	.001 20V (FT)	1521-0102-001	
C2	.001 20V	1521-0102-001	

PARTS LIST MICROCOM U15

POWER AMPLIFIER

RESISTORS (All Resistors are ±10%, ¼W, unless otherwise noted)

LOCATION	DESCRIPTION	PART NO.
R101	6.8K	4700-0682-042
R102	15K	4701-0153-042
R103	10K	4701-0103-042
R104	10K	4700-0103-042
R105	1.8K	4701-0182-042
R106	4.7K	4700-0472-042
R107	47 ohm	4700-0470-042
R108	180 ohm	4701-0181-045
R109	not used	
R110/L110	coil/resistor assy	1803-3412-400
R111	470 ohm	4700-0471-042

CAPACITORS

C101	.47PF 50V 5%	1524-0470-002	
C102	.005MF 50V +8-2%(DISC)	1503-0502-005	
C103	.01MF 50V +8-2%(DISC)	1503-0103-007	
C104	100PF 500V 5%(MICA)	1504-0101=505	
C105	.01MF 500V +8-2%(DISC)	1503-0103-008	
C106	100MF 16V 85D(ELEC)	1513-0101-002	
C107	100PF 500V 5%(MICA)	1504-0101-505	
C108	.01MF 500V +8-2%(DISC)	1503-0103-008	
C109	not used		
C110	not used		
C111	.01MF 50V +8-2%(DISC)	1503-0103-007	
C112	2.5-20PF(TRIM)	1517-0000-034	
C113	6.8PF 500V 10%(DISC)	1500-0689-905	
C114	.001MF 50V +8-2%(DISC)	1503-0102-003	
C115	100PF(MICA)	1522-0101-007	
C116	50PF(MICA)	1522-5418-301	
C117	not used		
C118	not used		
C119	50PF(MICA)	1522-5418-301	
C120	100PF(MICA)	1522-0101-007	(U15H,U18H only)
C121	not used		
C122	.01MF 50V +8-2%(DISC)	1503-0103-007	
C123	20PF(MICA	1522-0200-006	(U15, U18 only)
C123	33PF(MICA)	1522-0330-006	(U15H,U18H only)
C124	40PF(MICA)	1522-0400-006	
C125	.001MF 50V +8-2%(DISC)	1503-0102-003	
C126	6.8PF 500V 10%(DISC)	1500-0689-905	
C127	6.8PF 500V 10%(DISC)	1500-0689-905	
C128	100PF(MICA)	1522-0101-007	
C129	.001MF 50V +8-2%(DISC)	1503-0102-003	
C130	220PF 50V 5%(MICA)	1506-0221-550	